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ARTHROPODS OF MEDICAL IMPORTANCE IN ASIA  
(AND THE EUROPEAN USSR)

Part I of Two Parts, Printed Separately

by

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ARTHROPODS OF MEDICAL IMPORTANCE IN ASIA

(AND THE EUROPEAN USSR)

PART I

Introductory and Explanatory Material

Data on Mosquitoes

[ Part II, published separately, contains  
Data on Arthropods other than Mosquitoes ]

## FOREWORD

This report is one of the end-products of a series of studies that began in 1952 when the Office of The Quartermaster General awarded a contract to Cornell University for summarization of distributional data for insects and other arthropods of medical importance. The studies were planned in cooperation with personnel of the Office of the Surgeon General and the U. S. Department of Agriculture. Dr. Bernard V. Travis, Professor of Medical Entomology and Parasitology at Cornell University, has been the principal investigator since the inception of the series. A thorough search was made of the entomological literature, and for each country and major geographical region of the world a "summary report" was prepared, listing the reported occurrences and habitat data for medically important arthropods. These summary reports were placed on file at the Matick Laboratories and the Military Entomology Information Service, Walter Reed Army Medical Center, where they are available for loan and reference.

By 1964, it became evident that changes in the field of entomology--both in knowledge acquired and in the distributions of some species--required updating of the material contained in the country summary reports. It was decided also that the material would be more useful if consolidated on a continental rather than a country basis. Contracts were let with Cornell University for accomplishing these two tasks simultaneously, and the present report is the second result of this work, following an earlier report on Arthropods of Medical Importance in Africa. It will be followed by similar volumes for the other continents. For convenience in handling data sources, the European portion of the USSR was included with Asia in this compilation.

Because of the large number of entries, the report is in two parts, printed separately. Part I contains all the introductory material and data on mosquitoes; Part II contains data on arthropods other than mosquitoes.

Mapping of the distributions of the most important species is being done by the University of Pittsburgh's Department of Geography, and when completed for all continents the maps will be published in an Atlas of Medically Important Arthropods, to accompany this and the other continental summaries.

The contract under which this work was accomplished was supported by funds from the Office of the Chief of Research and Development, Department of the Army, and the U.S. Army Biological Laboratories, Fort Detrick, Maryland. This contract as well as the previous contracts in insect geography, was monitored by Mr. Carl W. Ross, formerly Geographer with the then Earth Sciences Division. Dr. John J. Pratt, Jr., Entomologist in the Pioneering Research Laboratory, was alternate project officer. The final phases of its completion and publication were supervised by Dr. William C. Robison, Chief of the Geography Division, this Laboratory.

The following members of the staff at Cornell University assisted the authors in preparing this compilation: Eveline Aron, Bine Cronheimer, Editha Gagni, Varda Langefeld, Susan Sirrine, Helen Younger and Ruth Breen, Librarian, Department of Entomology, Cornell University. Priscilla Lawrence typed the manuscript.

The Earth Sciences Laboratory is pleased to be able to present the results of the labors of Dr. Travis and his co-workers for the use of Army specialists in preventive medicine, public health officers, and entomologists.

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## ABSTRACT

The occurrence of insects and other arthropods of medical importance in Asia and the European USSR is summarized on the basis of a compilation of most of the available references in the scientific literature. The report includes, for each major group of arthropods, a listing of species and subspecies with biological and distributional data, tabulations of disease or disease organisms transmitted, and complete literature citations.

The groups of arthropods included, with the number of species or subspecies in each shown in parentheses (totaling 4389), are:

Part I: Mosquitoes (1236)

Part II: Arthropods other than mosquitoes: Black flies (228), Sand flies (166), Midges (272), Horse flies (1132), Biting flies (9), Non-biting flies (36), Fleas (717), Bugs (11), Urticating and vesicating arthropods (23), Ticks (401), Mites (134), and Miscellaneous arthropods (24).

## ARTHOPODS OF MEDICAL IMPORTANCE IN ASIA (AND THE EUROPEAN USSR)

### INTRODUCTION

#### 1. Format of this report

As will be seen from the Abstract and the Table of Contents, the data in this report are presented according to arthropod groups. Part I is on Mosquitoes. Part II contains data on the other groups of arthropods.

For each arthropod group the data are presented in two tables. In Table 1, which is the basic table for each arthropod group, are listed the arthropods, biological data, distribution, and documentary references. In Table 2 are summarized the disease organisms said by the authors to be transmitted by the arthropods.

After the above-mentioned tabular material there is, for each arthropod group, a section of Literature Cited, containing the complete citation referred to in the basic table (Table 1).

The format of the data sections of the report is explained below. At the end of this Introduction there are brief explanatory comments on synonymy, interpretation of statements, and the order of listings for any particular species in Table 1.

#### 2. Table 1 explained

For each group of arthropods (mosquitoes, black flies, etc.) its basic table, Table 1, lists for each species and subspecies the distribution (country or countries), together with any biological data, and the reference documenting each entry. We will explain this table by considering entries under each column heading in turn.

##### a. SPECIES

Under the first heading, SPECIES, is entered: genus, species, subspecies (if any), and describer.

The format for a typical entry under SPECIES is somewhat variable, depending on the information available for each arthropod group. Typically, the genera and species are listed in alphabetical order in each group. No entries are made for subgenera. However, the subspecies, varieties and forms are listed as they appear in the publications. The describer's name is given unless the author has not listed the name and it is not clear from the literature what the describer's name should be.

See note on synonymy at the end of this Introduction.

##### b. BREEDING HABITATS: ADULT ACTIVITY: DISTRIBUTION

The basic data of Table 1 are presented under these headings. The entries in the table are made in the same order as the heading indicates, and are separated by the same punctuation mark, ";". "No data" is indicated by "---"; that is, there may be no data in BREEDING HABITATS or ADULT ACTIVITY. Under DISTRIBUTION, the third category of information, a number is entered; this number represents a country which may be identified by consulting the Index of Countries, immediately following this Introduction.

For example, the entry for the second item on page 2 (---;---;143) means that there are no data on BREEDING HABITATS or ADULT ACTIVITY for India (number 143 under DISTRIBUTION, as identified in the Index of Countries) for the particular species.

Further comments on each part of this heading follow:

BREEDING HABITS: No entry is made (as indicated by "----") unless the author makes clear and specific statements. The data concerning the biology of the immature forms are quite sparse, except for mosquitoes.

ADULT ACTIVITY: Again, no entry is made (as indicated by "----") unless the author makes clear and specific statements. Also, except for mosquitoes, the authors present little biological data for adult arthropods.

DISTRIBUTION: As indicated by the heading, the third category of information is DISTRIBUTION and the entry in the table consists of one or more numbers. These numbers represent countries in Asia and may be identified by referring to the Index of Countries. All entries in this report (Table 2, COUNTRY, as well as Table 1, DISTRIBUTION) use these numbers instead of the full country name. For example, 3 is the entry Afghanistan. Where the authors have not recorded the specific country, an inclusive number is used. For example, 31 is the entry for Asia.

c. Symbols attached to the country number or to a reference date

In the DISTRIBUTION column, the country number may have a symbol attached to it, e.g., 143\* or 143°. In the DATE column, the date may have a symbol attached to it, e.g., 1913+.

Symbol \* after a country number indicates that the species is said by the author to transmit a disease organism to man. For example, on page 2 of this report, the 8th listing is "... 59\*". This means that the species in Burma are said to transmit a disease organism to man. When this symbol is used, the species of arthropod and the disease transmitted are entered in the table immediately following; that is, such entries in Table 1 are summarized in Table 2. Where two asterisks (\*\*) appear, they refer to two separate diseases.

Symbol ° after the country number indicates that the species is said by the author either to bite or directly annoy man. For example, on page 2 of this report, the 7th listing ends "... 190°". This means that the particular species in Malaya (country 190 in the Index) is said by the author either to bite or annoy man. These entries are not summarized as are those marked "\*" above.

Symbol + after the reference date indicates that the record is an unconfirmed entry. For example, on page 2 of this report, the next listing ends "MacGilchrist 1913 +". This means that the particular entry "----; bites by day; 143+" (country 143 in the Index is India) needs further confirmation. The same symbol (+) is used in Table 2, disease entries corresponding to the entries in Table 1. For example, on page 261 of this report, under the third summary entry in the COUNTRY column, 145+ means that the disease entry for Indonesia--Borneo, Celebes needs further confirmation.

d. (GENERAL STATEMENTS)

In addition to the three main categories of information as described above, the column heading indicates that there may be general statements. If so, this entry is made after those of the three main categories and is enclosed in parentheses, exactly as the column heading indicates. This may be a statement for either the various countries or continents or for the various species. For example, on page 2, this report, the 4th entry ends: "... (Vector of yellow fever)". Also, on page 11, the 4th entry ends "... (Treeholes)".

e. AUTHOR AND DATE

Every entry in Table 1 is documented by an author (or a senior author) and date of publication. The AUTHOR and DATE (year of cited publication) are entered in the last two columns of Table 1. (The complete literature citation is given, for each arthropod group, in the section immediately following the tables.)

3. Table 2 explained

As noted above, all entries marked "\*" in a table are summarized, for the particular species of arthropod, in the table immediately following, giving the country or countries where occurring, and the disease or disease organism transmitted.

Table 2 summarizes such items from Table 1. For example, on page 2 of this report (Mosquitoes, Table 1) the 8th entry contains the following: "... 59\*" and "... 144\*". We note, on this and succeeding pages, under the same species, other listings with this symbol: "... 76\* ... 118\* ... 139\*" etc. These and similarly marked country listings are summarized at the beginning of Table 2, page 261. Besides the SPECIES and the COUNTRY, the table also gives information on DISEASE OR DISEASE ORGANISM. Entries in these columns are discussed below.

a. SPECIES AND COUNTRY

The SPECIES is, of course, that indicated in Table 1, and the COUNTRY column summarizes all the numbers (i.e., countries) listed under DISTRIBUTION in Table 1 for this particular species that are marked "\*".

b. DISEASE OR DISEASE ORGANISM

Under this heading there are four subheadings (VIRUS & RICKETTSIA: PROTOZOA; HELMINTHS: OTHER). The subheading itself may be broken down, where necessary. For example, on page 261 (Mosquitoes, Table 2), the first subcolumn (VIRUS & RICKETTSIA) is broken down as: Dengue, Yellow fever, and Japanese "B" encephalitis, with numbers indicating the appropriate countries.

4. Addenda to tables explained

A few entries in the Mosquito and Midge sections were confirmed after the tables were typed. These entries were typed as an addendum immediately following the last entry in the main Table 1 for each of these two groups. For example, on page 402 of this report, three entries were made which merely added more information to what was already recorded in the main table. No additional species or subspecies were added to either Mosquitoes or Midges. Addenda table page 260 follows the same format of Table 1 as explained above.

5. Literatur<sup>r</sup> Cited section explained

At the end of each arthropod section there is a complete list of Literature Cited, as referred to in the last column of Table 1 (AUTHOR AND DATE).

The abbreviations of the periodicals follow the World List of Scientific Periodicals.

6. Special comments

a. A note on synonymy

The problem of attempting to straighten out synonymy of scientific names is beyond the scope of this report. Except for a few species, the scientific names as used by the authors are entered in the tables. In a few cases we have followed the synonymy of an acceptable monograph. As there is no universal agreement among taxonomists, the responsibility for synonymy must be referred to the interpretation of each specialist.

b. A note on interpretation of statements

An attempt has been made to avoid interpreting the published statements. This has been found difficult in matters concerning disease transmission; thus it is often clearer if we use the author's own words. In general, it has been found that few authors make unqualified statements concerning the vectors. Also, as one might expect, most of the statements are based on epidemiological evidence and not on actual transmissions.

c. Order of listing for same species in Table 1

If there is more than one country number for a single entry, the country numbers are arranged in ascending order. For example, on page 2 the 4th entry reads: "... 11, 70, 77. . . 342".

When there is more than one entry (that is, citation with Author and Date) under a single species and describer, the entries are listed in ascending order of country numbers, based on the first (lowest) number for each entry. Since all countries mentioned by a single author are listed in that entry, the countries under a given species are not necessarily all in numerical order when there is more than one entry for that species.

## INDEX OF COUNTRIES

In 1962 a world-wide Geographic Index was published\* listing all countries or major regions in alphabetical order, and assigning a number to each. The following list consolidates the countries of Asia from that Index and makes a few additions to it. The countries, as named at the time of publication of the present report, are shown on the adjacent map. Major islands and important political units having less than country status are also identified on the map and in the following list.

All the numbers of Asian countries, and areas in Europe controlled by the Soviet Union, are listed in order. All entries in this report use these numbers instead of country or regional names. For example, when number 3 is entered, it stands for Afghanistan; 59 stands for Burma. Where the authors have not recorded a specific country, an inclusive title is entered, e.g., 31 for Asia. This is the principal purpose of the Index: to identify the countries represented by numbers under DISTRIBUTION (Table 1) or COUNTRY (Table 2).

The Index also includes at least the major synonyms. The synonymy is preceded by a dash, the numbers appearing with the main entries. For example, the number 150 identifies Iran, but in alphabetical order among the P's is the synonym "- Persia or Iran, 150".

All countries in the 1962 Index are listed and cross-referenced through "332. Yemen" (the last number). The addenda to the original Geographic Index start with number 337. The numerical order is maintained in the addenda, but not the alphabetical order. However, entries from the addenda are cross-referenced alphabetically in the main list. For example, in the main list we have "- Middle East (Inclusive title), 340."

---

\*B. V. Travis, Herbert H. Casewell, Jr., William B. Rowan, Nelle Starcke, and Carl W. Ross: Classification and coding system for compilations from the world literature on insects and other arthropods that affect the health and comfort of man, Technical Report ES-4, Quartermaster Research & Engineering Center, Natick, Massachusetts, 1962, 259 pp.

## INDEX OF COUNTRIES

- 2. Aden Protectorate (formerly), now South Arabian Federation
- 3. Afghanistan
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- 25. Arabian Peninsula (Inclusive title)
- 28. Armenian S.S.R.
- 30. Ashmore Reef
- 31. Asia (Inclusive title)
  - Asia Minor (Inclusive title), 350
- 35. Azerbaijan S.S.R.
- 37. Bahrein and Associated Islands
  - Bali, indexed with Indonesia--Java, Flores, Timor, 146
  - Bangka, indexed with Indonesia--Sumatra, 149
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- 46. Bely Island or Ostrov Belyy or White Island
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- 90. Damao or Daman
  - Delong Islands or Ostrova de-Longa, indexed with New Siberian Islands, 221
- 94. Diu
  - East Indies also called Indonesia (Inclusive title), 337
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  - Flores, indexed with Indonesia--Java, Flores, Timor, 146
  - Formosa or Taiwan, 77
- 110. Franz Josef Land
  - French Indochina (formerly), indexed as Indochina, 144
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- 122. Goa
- 133. Hainan
- 139. Hong Kong
- 143. India
- 144. Indochina (Inclusive title), formerly French Indochina. Includes Vietnam, Laos, and Cambodia.
  - Indonesia or East Indies (Inclusive title), 337
  - Indonesia, Republic of, 145 (in part), 146 (in part), 147, 149
- 145. Indonesia--Borneo, Celebes
- 146. Indonesia--Java, Flores, Timor
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224. Nicobar Islands

229. Novaya Zemlya

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- Nunivak Island, indexed with Bering Sea Islands, 47

232. Ogasawara Gunto

233. Oman and Muscat

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- Ostrov Belyy or Bely Island or White Island, 46
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  - Sakhalin, including Karafuto, indexed with Russian S.S.R., 256
  - Sarawak, now included in Malaysia, indexed with Indonesia--Borneo, Celebes, 145
270. Saudi Arabia
274. Severnaya Zemlya
276. Shantariske Islands
277. Siam (formerly), now called Thailand
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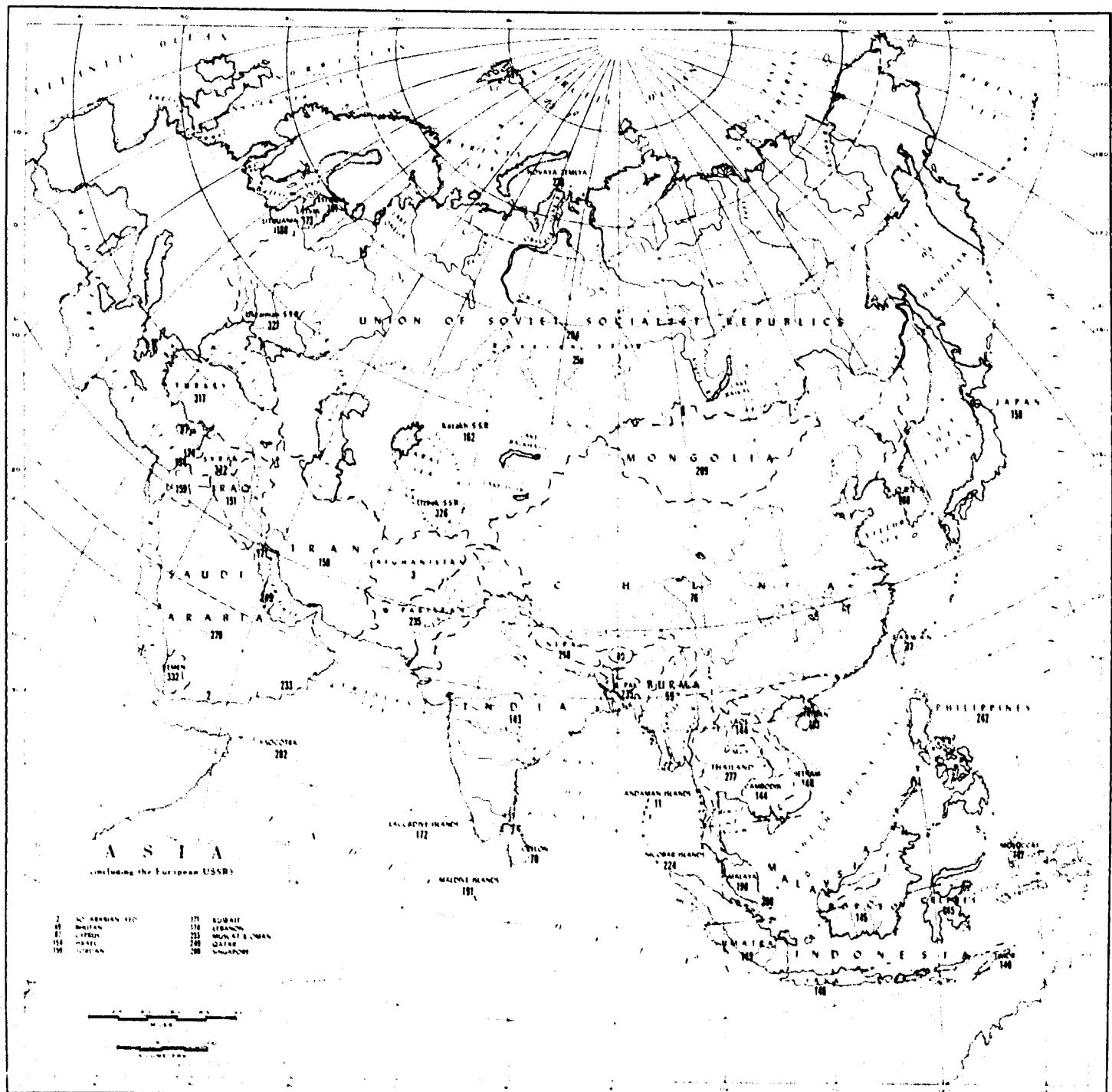
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\* \* \* \* \*

ADDENDA:

- 337. East Indies or Indonesia (Inclusive title)
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- 345. Transcaucasia or Caucasus (Inclusive title)
- 349. Portuguese India (formerly) (Inclusive title)
- 350. Asia Minor (Inclusive title)
- 353. Mongolia (Inclusive title)
- 354. Transcaspia (Inclusive title)
- 366. Bengal (Inclusive title)



## **ARTHROPOD DATA**

### **A. MOSQUITOES**

The mosquito entries include information on the biology of the larvae and adults in addition to distribution and disease transmission. As might be expected the mosquitoes constitute a large assortment of species in Asia. The extremely diverse ecological conditions provide habitats that are occupied by 1236 species or subspecies. The tabulation will show that some of the species have a large documentation of their biology. Usually such species are of great economic importance because they are important vectors. Some species have almost no information except distributional data. Such species are usually uncommon or else are thought to be of little significance as vectors.

So many mosquitoes will bite man that an effort has been made to make a complete listing of mosquito species and subspecies. The synonymy is a difficult problem in this group; thus, some species and subspecies in the list are not valid names.

TABLE 1 - MOSQUITOES

| SPECIES                      | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR         | DATE   |
|------------------------------|--|----------------|--------|
| <i>AEDES</i>                 |  |                |        |
| <i>ababsantosi</i><br>Baisas | Rock holes in stream beds; ---; 242  | Knight & Marks | 1952   |
| <i>abditus</i><br>Barraud    | ---; ---; 143  | Barraud        | 1934   |
| <i>adustus</i><br>Laffoon    | Pool; ---; 242   | Knight & Hull  | 1953   |
| <i>aegypti</i><br>(Linnaeus) | ---; ---; 11, 70, 77, 118, 139, 143, 145, 146, 147, 149, 151, 154, 158, 159, 174, 190, 224, 235, 242, 277, 280, 302, 317, 342 (Vector of yellow fever) | Kumm           | 1931   |
|                              | ---; ---; 11, 59, 70, 143, 224, 335 (Artificial containers of water near or in houses)   | Barraud        | 1934   |
|                              | ---; ---; 31, 295 (Reservoir, artificial containers, bites man, vector of yellow fever)  | Shtakelberg    | 1937   |
|                              | ---; ---; 59, 76, 136 (Bites man). ---; ---; 190°  | Mattingly      | 1957   |
|                              | ---; ---; 59*. Artificial containers; ---; 144*°   | Wilcocks       | 1944   |
|                              | Tree holes and bamboo stumps; ---; 70  | Wijesundara    | 1942   |
|                              | Artificial water containers around houses, mosquito nets; day-time feeders and continue to feed until late at night, July and Aug.; 76°                | Feng           | 1933   |
|                              | Artificial containers, leaf axils; enters houses; 76*°, 133. ---; ---; 139*  | Hsiao          | 1945   |
|                              | Artificial containers; ---; 76   | Bohart         | 1946   |
|                              | Water with organic matter, rarely leaf axils, leaves, bamboo stumps, tree holes, coconut shells; bites day and night; 77°, 147°, 242°                  | Farner et al.  | 1946 + |
|                              | Outdoor and indoor artificial containers; April, May, summer season, vector of dengue; 118*. ---; ---; 317   | Marzinowsky    | 1930   |
|                              | Pools; enters houses; 118  | Shakhov        | 1926 + |
|                              | Tree holes, leaf axils of <i>Dressina</i> ; ---; 143   | Sen            | 1935 + |
|                              | ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 143  | Raghavan       | 1961   |
|                              | ---; bites by day; 143°  | MacGilchrist   | 1913 + |
|                              | ---; experimentally infected with <i>W. bancrofti</i> and <i>W. malayi</i> ; 144   | Galliard       | 1947   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|---|---|------------------------|--------|
| <i>AEDES aegypti</i><br>(Linnaeus)<br>(cont.) | ---; naturally infected with <i>W. bancrofti</i> ; 144  | Mansen-Bahr            | 1959   |
|   | ---; ---; 1'5, 146, 147, 149 (Artificial containers, plant axils, in houses, bites man day and night)   | Farner                 | 1943   |
|   | Artificial containers; ---; 150, 151, 256   | Monchadskii            | 1936 + |
|   | ---; ---; 151°  | Fleming & French       | 1947   |
|   | ---; transmit dengue fever, Oct.-Dec., peak Nov.; 154*  | Kligler                | 1928a  |
|   | Brackish water and fresh water; ---; 159*   | Anonymous              | 1944a  |
|   | Water butts, artificial containers, pools; Apr.-Dec., active along coastal areas; 168. Waterbutts, artificial containers, pools; swarms in Aug. afternoons, active in coastal towns and villages; 302 | Parr                   | 1943 + |
|   | ---; experimentally infected with <i>W. malayi</i> ; 190  | Wharton                | 1957   |
|   | ---; ---; 232. Artificial containers; vector of dengue; 257*  | Hsiao & Bohart         | 1946   |
|   | Drinking water chatties; vicious day biter; 235°  | Mhaskar                | 1913 + |
|   | Collection of clear rain water in leaf axils, bananas and <i>Calocasia</i> ; ---; 242*  | Siler et al.           | 1926   |
|   | Sunny or shaded, stained or polluted water, tree holes, artificial containers; ---; 242   | Bick                   | 1949   |
|   | ---; experimental transmission of dengue; 242   | Schule                 | 1928   |
|   | ---; Apr., Aug.; 242 (Bites during day)   | Simmons et al.         | 1930   |
|   | ---; enters houses; 242°  | Knight & Hull          | 1952   |
|   | ---; ---; 242*  | Feng                   | 1935   |
|   | ---; Aug.; 256  | Breev                  | 1950   |
|   | Artificial containers; ---; 257   | Bohart & Ingram        | 1946   |
|   | Domestic collection of water; responsible for the spread of dengue; 277   | Wilcocks               | 1944b  |
|   | ---; enters houses; 277   | Barraud & Christophers | 1931   |
|   | Artificial containers; ---; 280   | Colless                | 1957a  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE                                   |
|---|---|--|--|
| <i>AEDES aegypti</i><br>(Linnaeus)<br>(cont.)               | Fresh and brackish water; ---; 317*<br>---; ---; 337*<br>Artificial containers; May-Nov.; 345   | Anonymous<br>Wilcocks<br>Zaitzer                                     | 1944<br>1944<br>1934 +                 |
| <i>aegypti luciensis</i><br>Theobald                        | ---; ---; 70  | Carter   | 1950a                                  |
| <i>aegypti</i><br>var. <i>queenslandensis</i><br>(Theobald) | ---; ---; 2<br>Artificial containers; ---; 35<br>---; ---; 143, 146   | Mattingly &<br>Bruce Chwatt<br>Achundow<br>Mattingly                 | 1954<br>1932 +<br>1957                 |
| <i>africanus</i><br>Theobald                                | ---; naturally infected with Chikungunya virus;<br>277  | McIntosh<br>et al.   | 1963                                   |
| <i>agrestis</i><br>Barraud                                  | ---; ---; 143   | Barraud  | 1934                                   |
| <i>albescens</i><br>Edwards                                 | ---; ---; 256   | Martini  | 1930                                   |
| <i>alboannulatus</i><br>Ludlow                              | ---; ---; 242   | Edwards  | 1922c                                  |
| <i>albocinctus</i><br>Barraud                               | Tree holes; ---; 76<br>Tree holes; 3,000-4,000 feet elevation, Aug.; 143  | Chow<br>Barraud  | 1949c<br>1924f                         |
| <i>albolateralis</i><br>(Theobald)                          | Tree holes, bamboo stumps; ---; 76<br>---; ---; 77, 168. Tree holes and cut bamboo;<br>---; 158°<br>Tree holes; bamboos; 143. ---; ---; 190<br>---; -- ; 143 (Tree holes, bamboo-stumps)<br>---; ---; 158 | Chow<br>Hsiao &<br>Bohart<br>Knight &<br>Marks<br>Barraud<br>Edwards | 1949c<br>1946<br>1952<br>1934<br>1922c |
|   | Tree holes and bamboo stumps; adults are daytime<br>biters, <i>Wuchereria bancrofti</i> larvae only undergo<br>partial development; 168°  | Hsiao  | 1948                                   |
| <i>albolineatus</i><br>(Theobald)                           | Tree holes and bamboos; ---; 76<br>Bamboo stumps; ---; 77<br>Tree holes, leaf axils, coconut husks, artificial<br>containers; ---; 143, 145, 190  | Bohart<br>Chow<br>Lee  | 1946<br>1950<br>1944                   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                   |
|--|--|---|--|
| <i>AEDES albolineatus</i><br>(Theobald)<br>(cont.) | Hollow bamboo stalks; ---; 144<br>---; enters houses, rare; 144°<br>---; ---; 146<br>---; ---; 147, 149<br><br>Tree holes, bamboo, leaf axils, coconut husks,<br>rarely in artificial containers and rockholes;<br>---; 242  | Borel<br>Galliard<br>Brug<br>Knight &<br>Hull<br>Bohart | 1930a<br>1936a<br>1924<br>1952<br>1945 |
| <i>alboniveus</i><br>Barraud                       | Tree holes, bamboos; ---; 143<br><br>Tree holes; ---; 146  | Knight &<br>Marks<br>Brug                               | 1952<br>1939 +                         |
| <i>albopictus</i><br>(Skuse)                       | ---; ---; 11, 59, 70 (Tree holes, bamboos, leaf<br>axils)<br><br>---; Mar.; 59. ---; Nov.; 70. Standing water<br>near houses; ---; 139. ---; ---; 145, 277.<br>---; troublesome all year, common in houses; 147.<br>---; experimental transmission of dengue to man,<br>effective dengue carrier, Feb., Apr.-Sept.; 242.<br>---; July; 280 (Bites man viciously during day)<br><br>Tree holes and bamboo stumps; ---; 70 | Barraud<br>Simmons<br>et al.                            | 1934<br>1930                           |
|  | Tree holes and bamboos, artificial containers;<br>carrier of dengue, experimentally trans-<br>mitted Japanese "B" encephalitis; 76   | Bohart  | 1946                                   |
|  | Trenches, near habitations; bites at twilight,<br>rarely after dark; 76°, 139°. Coconut shells,<br>rock holes, ditches; bites man at twilight,<br>rarely after dark; 158°, 242°  | Farner<br>et al.  | 1946                                   |
|  | Stagnant water, rain water in sheds; Aug.-Sept.;<br>76. Stagnant water in artificial containers;<br>---; 242*  | Tseng &<br>Wu   | 1951                                   |
|  | Ricefields; all year; 76   | Riley   | 1932                                   |
|  | Household water containers, neglected earthen<br>jars and stone excavation containing rain water<br>and bamboo stumps; ---; 76   | Feng  | 1933b                                  |
|  | Tree holes, artificial containers, rock holes<br>and pools; ---; 76  | Chang   | 1939                                   |
|  | Collections of stagnant water and large pits<br>for faecal matter; ---; 76   | Feng  | 1932                                   |
|  | Leaf bases of Tun-tun and Moo-in-Ka; ---; 76   | Chow  | 1949c                                  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR          | DATE    |
|---|--|-----------------|---------|
| <i>AEDES albopictus</i><br>(Skuse)<br>(cont.) | Jungle, mountains, lowlands, ponds; ---; 76  | Li & Wu         | 1935a + |
|   | Collected at 2,500 feet elevation; ---; 76   | Crook           | 1939    |
|   | ---; least abundant, frequents houses, bites man in the daytime; 76°   | Meng            | 1943    |
|   | ---; ---; 76*. ---; ---; 133, 139 (Artificial containers, natural water, tree holes, bamboo holes, stone cavities)   | Hsiao           | 1945    |
|   | ---; ---; 76*  | Manson-Bahr     | 1959    |
|   | Bamboo stumps, artificial water containers; ---; 77  | Chow            | 1950    |
|   | ---; experimental transmission of dengue; 77, 158  | Barraud         | 1928a   |
|   | ---; ---; 118  | Roukhadze       | 1926b   |
|   | ---; ---; 122, 149, 235. ---; experimental transmission of yellow fever; 146   | Kumm            | 1931    |
|   | ---; ---; 139°   | Jackson         | 1936    |
|   | Tree holes; possible vector of yellow fever; 143   | Sen             | 1926    |
|   | Hay of wheat, rice, oats, pulses and potatoes, diluted and allowed to rot; ---; 143  | Fletcher        | 1928    |
|   | Bamboo traps; ---; 143   | Fletcher        | 1923    |
|   | ---; ---; 143. ---; experimentally infected with dengue; 242. Artificial containers in door yards, tree holes in cemeteries, rock holes, bamboos; resting in wooded areas, banana groves, sweet potato patches, biting in shade during day; 257 (Severe pest biting day and night) | Bohart & Ingram | 1946    |
|   | Artificial containers; active throughout entire year, enters houses; 144   | Borel           | 1926    |
|   | ---; day and night, abundant in forest, near river; 144°   | Borel           | 1926    |
|   | ---; experimentally infected with <i>Wuchereria bancrofti</i> Galliard and <i>W. malayi</i> ; 144  | Galliard        | 1947    |
|   | ---; rare; 144   | Galliard & Ngu  | 1950    |
|   | Plant axils, artificial containers, rarely in ponds, ditches, puddles; ---; 145°*, 146°*, 147°*, 149°*   | Farner          | 1943 +  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE   |
|---|--|---------------------|--------|
| <i>AEDES albopictus</i><br>(Skuse)<br>(cont.) | ---; ---; 145, 366. ---; suspected vector of dengue, bites man during daytime, Feb., Apr.-Aug.; 242°   | Simmons et al.      | 1931   |
|   | Sewage and disposal installations; ---; 146, 190   | Roy & Brown         | 1954   |
|   | Small fresh water collections around habitations, tree holes, cut bamboo, in cemeteries and other places frequented by human beings; ---; 158*   | Hsiao & Bohart      | 1946   |
|   | Coconut from <i>Colocasia antiquorum</i> , bamboo stump, from leaf of <i>Crinum</i> , from rock pool at lake, tree hole, leaf axils of wild <i>Pisang</i> , bamboo hole; ---; 158, 337                                 | Brug                | 1931   |
|   | ---; dense woods, suspected vector of dengue fever, May-Oct.; 158°   | La Casse & Yamaguti | 1950   |
|   | Artificial containers, stone and bamboo holes, rain-water pools; ---; 158°   | Sasa & Sabin        | 1950   |
|   | ---; experimentally infected with Japanese "B" encephalitis; 158   | Sabin               | 1950   |
|   | ---; July to Aug.; 158   | Mitamura et al.     | 1950   |
|   | ---; indoors; 158  | Mitamura & Kitaoka  | 1950   |
|   | Bamboo stumps, artificial containers, depressions in grave stones, small rock pools; bites man densely shaded woods during day, vector of dengue, filariasis and a possible vector of Japanese "B" encephalitis; 168** | Barnett & Toshioka  | 1951   |
|   | Palms, artificial containers; in houses; 190   | Milne               | 1933   |
|   | ---; experimentally infected with <i>W. malayi</i> ; 190   | Wharton             | 1957   |
|   | ---; ---; 190 (Carrier of dengue)  | Gater               | 1929   |
|   | Leafbase of <i>Alocasia indica</i> ; ---; 191  | Mattingly           | 1954 + |
|   | ---; enters houses by day; 191   | Kalra               | 1947 + |
|   | Tree holes; artificial containers; 194*  | Anonymous           | 1946   |
|   | Stubs and fallen section of bamboos in fermentation stage; abundant in bamboo thickets, bites man during day; 242°   | Rozeboom & Cabrera  | 1964   |
|   | All types of artificial containers, small natural containers, tree holes, cut bamboo; near human habitation; 242   | Knight & Hull       | 1952   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|--|--|------------------------|--------|
| <i>AEDES</i><br><i>albopictus</i><br>(Skuse)<br>(cont.)  | Artificial containers, coconut shells, tree holes, stained clear, and polluted water; ---; 242   | Bick                   | 1949   |
|  | Leaf axils, rock pools; ---; 242   | Bohart                 | 1945   |
|  | ---; important vector of dengue fever; 242*  | Feng                   | 1935   |
|  | Artificial collections of water; enters houses; 277  | Barraud & Christophers | 1931   |
|  | Natural water collections, jungle, tree holes, rock holes, split and cut bamboo; ---; 277  | Causey                 | 1937   |
|  | Artificial containers, tree holes, coconut shells, bamboo stumps, pitcher plants, fallen leaves; ---; 280  | Colless                | 1957 a |
| <i>alboscutellatus</i><br>(Theobald)                     | ---; ---; 59, 242, 277 (Jungle pools)  | Barraud                | 1934   |
|  | ---; ---; 70   | Carter                 | 1950 a |
|  | ---; ---; 143, 146, 147, 149. Jungle pools; ---; 190. Knight & Clear stagnant water in road ruts, shaded permanent ditch, jungle pools; bite man in densely shaded woods; 242° | Hull                   | 1953   |
|  | ---; ---; 145, 158   | Edwards                | 1922 c |
|  | Ground pools; ---; 158°. ---; ---; 337   | Hsiao & Bohart         | 1946   |
|  | ---; July; 242   | Dyar & Shannon         | 1925   |
| <i>albotaeniatus</i><br>(Leicester)                      | ---; ---; 70, 190  | Stone et al.           | 1959   |
|  | Jungle pools; Aug., Dec., Jan.; 143  | Barraud                | 1928   |
|  | Bamboo stump; ---; 143, 149, 190   | Brug                   | 1931   |
| <i>albotaeniatus</i><br>var. <i>mikiranus</i><br>Edwards | Bamboo stumps; ---; 76   | Chow                   | 1949 c |
|  | Bamboos; ---; 143  | Barraud                | 1934   |
| <i>alektorovi</i><br>Stakelberg                          | Tree holes, artificial containers; ---; 256  | Pavlovskii             | 1947 + |
| <i>alongi</i><br>Galliard &<br>Ngu                       | ---; ---; 144  | Stone et al.           | 1959   |
| <i>alpinus</i><br>(Linnaeus)                             | ---; Apr.-Sept.; 256   | Pletnjow               | 1928   |
|  | ---; ---; 256°   | Kiseleva               | 1936   |
| <i>amesii</i><br>(Ludlow)                                | ---; ---; 77   | Edwards                | 1921 a |
|  | ---; ---; 143, 144, 145, 190, 242  | Edwards                | 1922 c |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR         | DATE    |
|---|--|----------------|---------|
| <i>AEDES amesii</i><br>(Ludlow)<br>(cont.)                | ---; numerous in the swampy region; 149  | Dammerman      | 1926    |
|   | Axils and stumps of nipa palms, in and along mangrove areas, tree holes, coconut shells, axil of atap palm; in or at the margins of mangrove areas, vegetations, entrances of crab holes, from around humans; 242. ---; ---; 277 | Knight & Hull  | 1952    |
|   | Holes and fallen trees in mangrove swamps; ---; 280  | Edwards        | 1926 +  |
| <i>ananae</i><br>Knight & Laffoon                         | Leaf axils of banana, pineapple, <i>Pandanus</i> , abaca; ---; 242   | Knight & Marks | 1952    |
|   | ---; ---; 242  | Bick           | 1949    |
| <i>andamanensis</i><br>Edwards                            | ---; ---; 11, 235  | Barraud        | 1928a   |
|   | ---; Oct.; 143   | Senior-White   | 1934    |
|   | Shady wet ruts in forest paths with little vegetation; ---; 144  | Borel          | 1930a   |
|   | ---; ---; 146, 149, 190  | Brug & Edwards | 1931    |
|   | ---; ---; 242  | Barraud        | 1934    |
|   | ---; ---; 280  | Edwards        | 1928a   |
| <i>annandalei</i><br>(Theobald)                           | ---; ---; 11, 76, 143, 144 (Diurnal). ---; ---; 149 (Bamboo stumps, diurnal)   | Hsiao          | 1945    |
|   | ---; ---; 11, 143, 190 (Tree holes, bamboos)   | Lee            | 1944    |
|   | Tree holes, bamboo stumps; bites man in daytime; 76°   | Chow           | 1949c   |
|   | Bamboo stump at 1900 feet altitude; ---; 76  | Feng           | 1933b   |
|   | Bamboo stump near foothills; ---; 76   | Chang          | 1939    |
|   | Collected at 2,500 feet elevation: ---; 76   | Crook          | 1939    |
|   | ---; jungle; 76  | Li & Wu        | 1935b + |
|   | Bamboo stumps; ---; 77   | Chow           | 1950    |
|   | Bamboo stumps, bamboo cut; ---; 143  | Brug           | 1931a   |
| <i>annandalei</i><br>var. <i>quadricinctus</i><br>Barraud | ---; ---; 143  | Barraud        | 1934    |
| <i>annulifera</i><br>Theobald                             | ---; ---; 145  | Brug           | 1925 +  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE  |
|---|---|--|---|
| <i>AEDES annulipes</i><br>Meigen                      | Shaded reservoirs; ---; 256<br>---; July-Sept.; 256<br>---; ---; 256 (Reservoirs, forest and thick bushes)  | Monchadskii<br>Pletnjow<br>Shtakelberg   | 1936 +<br>1928<br>1937  |
| <i>annulirostris</i><br>(Theobald)                    | ---; ---; 70, 143 (Tree holes, water butts)   | Barraud  | 1934  |
| <i>annulitarsis</i><br>Leicester                      | ---; ---; 77, 144, 149, 190, 277. Bamboo stumps;<br>---; 143  | Barraud  | 1934  |
| <i>arabiensis</i><br>(Patton)                         | ---; ---; 2. Temporary waters; ---; 25  | Edwards  | 1941  |
| <i>aranetanus</i><br>(Banks)                          | <i>Colocasia</i> axils, banana leaves; ---; 145<br>Axils of banana leaves; ---; 242   | Marks<br>Stone &<br>Bohart   | 1948 +<br>1944  |
| <i>arboricolus</i><br>Knight &<br>Rozeboom            | ---; ---; 242   | Stone et al.   | 1959  |
| <i>argenteomaculatus</i><br>Theobald                  | ---; ---; 11, 143   | Edwards  | 1922c   |
| <i>argenteoscutellatus</i><br>Carter &<br>Wijesundara | ---; ---; 70  | Carter   | =<br>1950a  |
| <i>argenteus</i><br>Poiret                            | ---; Apr.-Sept.; 2*<br>---; ---; 77<br>Artificial containers; ---; 118<br>---; ---; 139<br>Artificial containers, found in houses throughout<br>entire year; ---; 144°<br>---; rare; 144<br>---; ---; 146, 149, 190<br>---; ---; 150, 151, 158<br>---; ---; 154<br>---; ---; 174<br>---; ---; 242<br>Artificial containers; ---; 302<br>---; Jan.-Nov.; 317 | Dive<br>Edwards<br>Roukhadze<br>Severn<br>Borel<br>Galliard<br>Brug &<br>Edwards<br>Edwards<br>Kligler<br>Legendre<br>Edwards<br>Legendre<br>Hakki | 1927 +<br>1921a<br>1929<br>1926 +<br>1926<br>1936a<br>1931<br>1921 +<br>1928a +<br>1922 +<br>1929<br>1924 +<br>1927 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                   |
|--|--|---|--|
| <i>AEDES</i>   |  |   |  |
| <i>asanumai</i><br>Sasa, Kono<br>& Takahasi                | ---; ---; 158  | Sasa, Kono<br>& Takahasi                      | 1950a                                  |
| <i>assamensis</i><br>(Theobald)                            | Tree holes, bamboo stumps; ---; 76<br>Tree holes; July-Sept.; 143, 235<br>---; common; 143, 235 (Tree holes). ---; ---; 146<br>(Tree holes)<br>Tree holes; ---; 144<br>---; ---; 277 | Chow<br>Barraud<br>Barraud<br>Borel<br>Causey | 1949<br>1923a<br>1934<br>1930a<br>1937 |
| <i>atrius</i><br>Barraud                                   | ---; ---; 143  | Barraud                                       | 1928a                                  |
| <i>aurantius</i><br>(Theobald)                             | Pig wallows, clear water marsh pools, grassy<br>swampy pools; ---; 145, 190<br>---; ---; 149   | Lee<br>Brug &<br>Edwards                      | 1944<br>1931                           |
| <i>aurantius</i><br><i>quadripunctis</i><br>(Ludlow)       | ---; ---; 242  | Stone et al.                                  | 1959                                   |
| <i>aureostriatus</i><br>(Doleschall)                       | Tree holes, bamboo stumps; ---; 143, 149<br>Tree holes; ---; 147. ---; ---; 145, 146<br>Tree holes; ---; 242   | Lee<br>Knight<br>& Marks<br>Knight<br>& Hull  | 1944<br>1952<br>1951                   |
| <i>aureostriatus</i><br>var. <i>greeni</i><br>(Theobald)   | Tree holes, bamboo stumps; ---; 70<br>---; ---; 143, 146, 149  | Wijsundara<br>Knight &<br>Marks               | 1942<br>1952                           |
| <i>aureostriatus</i><br>var. <i>kanaranus</i><br>(Barraud) | Tree holes and bamboo stumps; ---; 70<br>Tree holes and bamboos; ---; 143  | Wijsundara<br>Knight &<br>Marks               | 1942<br>1952                           |
| <i>aureus</i><br>Gutzevich                                 | ---; ---; 256  | Stone et al.                                  | 1959                                   |
| <i>aurimargo</i><br>Edwards                                | ---; ---; 147  | Edwards                                       | 1924 +                                 |
| <i>auronitens</i><br>Edwards                               | Tree holes; Aug.-Sept.; 143  | Barraud                                       | 1924a                                  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR          | DATE  |
|--|--|-----------------|-------|
| <i>AEDES aurotaeniatus</i><br>Edwards    | ---; collected at a high altitude on a rainy day; 242°   | Bohart          | 1945  |
|  | ---; ---; 242  | Edwards         | 1929  |
| <i>avistylus</i><br>Brug.                | Axils of <i>Colocasia</i> , bamboo; ---; 145, 147, 190   | Knight & Marks  | 1952  |
|  | Leaf axils and bamboo stumps; ---; 145   | Stone & Bohart  | 1944  |
| <i>baisasi</i><br>Knight & Hull          | ---; ---; 242  | Stone et al.    | 1959  |
| <i>bambusicolus</i><br>Knight & Rozeboom | ---; ---; 242  | Stone et al.    | 1959  |
| <i>banksi</i><br>Edwards                 | Rock holes in stream beds; ---; 242  | Knight & Marks  | 1952  |
|  | ---; ---; 242  | Edwards         | 1922b |
| <i>behningi</i><br>Martini               | Steppe ponds; June; 256°, 321°   | Martini         | 1930  |
|  | ---; ---; 256, 321 (In deep water)   | Shtakelberg     | 1937  |
|  | ---; June-August; 321  | Rybiansky       | 1933  |
| <i>beklemishevi</i><br>Denisova          | ---; ---; 256  | Stone et al.    | 1959  |
| <i>berlandi</i><br>Seguy                 | ---; ---; 317  | Stone et al.    | 1959  |
| <i>boharti</i><br>Knight & Rozeboom      | ---; ---; 242  | Bicks           | 1949  |
| <i>brayi</i><br>Knight                   | ---; ---; 242  | Stone et al.    | 1959  |
| <i>bunaroki</i><br>Sasa & Ishimura       | Tree holes at the root or trunk of beech; June-Oct., in beech forest, elevation 450-750 meters; 158°                 | Sasa & Ishimura | 1951  |
| <i>burgosii</i><br>Baisas                | Rock holes in stream beds; ---; 242  | Knight & Marks  | 1952  |
| <i>butleri</i><br>Theobald               | ---; in forest; 11° (Brackish pools in mangrove swamps). ---; ---; 143, 144, 190 (Brackish pools in mangrove swamps) | Barraud         | 1934  |
|  | ---; ---; 70   | Carter          | 1950a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|---|---|--|--|
| <i>AEDES</i><br><i>butleri</i><br>Theobald<br>(cont.) | ---; ---; 145, 146<br>---; ---; 147<br>---; numerous in the swampy region; 149<br>---; grassy fields; 242<br>Shady, brackish pools with thick vegetation; Apr.-June, Oct.; 277<br>Brackish pools of the tidal zone, grassy margins of running streams; ---; 280               | Stone et al.<br>Edwards<br>Dammerman<br>Banks<br>Causey<br>Colless | 1959<br>1924 +<br>1926<br>1919 +<br>1937<br>1957a      |
| <i>caballus</i><br>(Theobald)                         | ---; ---; 2, 150  | Stone et al.   | 1959   |
| <i>cacharanus</i><br>(Barraud)                        | Tree holes; July; 143   | Barraud  | 1923b  |
| <i>caecus</i><br>(Theobald)                           | ---; ---; 59, 143, 144, 235 (Natural pools in open jungle)<br>Ground pools; ---; 76<br>---; ---; 143, 190 (Puddles, wheel-ruts, pools in open jungle)<br>From a whirlpool in an inlet; ---; 146, 149, 190<br>Cart-ruts; ---; 146<br>---; ---; 242<br>Buffalo wallow; ---; 277 | Barraud<br>Chow<br>Lee<br>Brug<br>Brug<br>Edwards<br>Causey        | 1934<br>1949c<br>1944<br>1931a<br>1924<br>1929<br>1937 |
| <i>calopus</i><br>Meigen                              | ---; active April-October; 118<br>---; ---; 151, 302  | Roukhadze<br>Hsiao   | 1926b<br>1946  |
| <i>campylostylus</i><br>Laffoon                       | ---; ---; 242   | Bick   | 1949   |
| <i>cancricomes</i><br>Edwards                         | Crab holes; ---; 11<br>---; ---; 145<br>---; ---; 146, 149  | Edwards<br>Brug<br>Brug &<br>Edwards                               | 1922b<br>1925 +<br>1931                                |
| <i>cantans</i><br>Meigen                              | ---; ---; /6<br>---; ---; 256 (Forest grounds in snow-melt water, algae water, Spring-Aug., bites during the day)<br>---; ---; 321  | Stone et al.<br>Martini<br>Dubovskii                               | 1959<br>1930<br>1930                                   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                  | DATE   |
|---|--|-------------------------|--------|
| <i>AEDES caspius</i><br>Pallas                            | ---; ---; 28°, 31, 35, 118, 256, 318, 321, 326<br>(In reservoirs, puddles, meadows and steppe)                         | Shtakelberg             | 1937   |
|   | ---; enters houses; 35   | Gutzevich &<br>Gurow    | 1932 + |
|   | ---; ---; 70, 143  | Barraud                 | 1928   |
|   | Swamps, marshes, bottoms of freshly dried pools;<br>June-July; 150°  | Gutzevich               | 1943   |
|   | Salt swamps; ---; 150  | Gutzevich               | 1948 + |
|   | ---; ---; 151, 235 (Open natural pools, fresh and<br>brackish)   | Barraud                 | 1934   |
|   | Shaded reservoirs; ---; 162, 256   | Monchadskii             | 1936 + |
|   | ---; ---; 207  | Lepsi                   | 1935 + |
|   | Puddles, pits or swampy fields; grassy areas,<br>experimentally infected and transmission of<br>encephalomyelitis; 256 | Pavlovskii              | 1947 + |
|   | ---; in steppes, semi-desert and desert areas; 303°  | Bregetova               | 1946   |
|   | Turbid yellow, neutral water, rain pools, in<br>meadows; ---; 317  | Bedia Bali              | 1938   |
|   | Filthy brackish pools; ---; 317  | Auster                  | 1925   |
|   | Brackish wells; ---; 318   | Petrishcheva            | 1936 + |
|   | ---; ---; 321°   | Reinhard &<br>Gutzevich | 1931   |
|   | Ponds; ---; 326  | Kazantza                | 1932 + |
|   | ---; ---; 326°   | Tshimaev                | 1945 + |
|   | Hoof prints near marshy area; ---; 342   | Buxton                  | 1922   |
|   | ---; ---; 342  | Anonymous               | 1944c  |
| <i>caspius dorsalis</i><br>Meigen                         | ---; ---; 35, 76, 118, 209, 256, 321 (In<br>temporary reservoirs, ponds, meadows)                                      | Shtakelberg             | 1937   |
|   | Small reservoirs; ---; 76, 256, 353  | Monchadskii             | 1936 + |
| <i>cataphylla</i><br>Dyar                                 | ---; ---; 76   | Stone                   | 1961   |
|   | ---; ---; 118, 256, 321 (Reservoirs, edge of forest,<br>bushes, sedge marshes)   | Shtakelberg             | 1937   |
|   | Fields, ditches; ---; 256, 321   | Monchadskii             | 1936 + |
| <i>cataphylla</i><br>var. <i>rostochiensis</i><br>Martini | ---; May-Sept.; 256  | Pletnjow                | 1928   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                           |
|-------------------------------------|--|---|--------------------------------|
| <i>AEDES</i>                        |  |   |                                |
| <i>cautus</i><br>Barraud            | Jungle ground pools; ---; 143  | Barraud   | 1934                           |
| <i>ceramensis</i><br>Brug           | ---; ---; 147  | Stone et al.  | 1959                           |
| <i>ceylonicus</i><br>Edwards        | ---; ---; 70   | Senior-White  | 1927                           |
| <i>chemulpoensis</i><br>Yamada      | Treeholes and bamboos; ---; 76, 153<br>---; July, Aug., experimentally infected with Japanese "B" Encephalitis; 76<br>---; ---; 76, 158 (Vigorous daytime feeders)<br>---; naturally infected with <i>Wuchereria bancrofti</i> ; 158*  | Bohart<br>Chao & Chung<br>Hsiao<br>Manson-Bahr        | 1946<br>1951 +<br>1945<br>1959 |
|                                     | Bamboo stumps, tree holes; day biter; 168°   | Barnett & Toshioka                                    | 1951                           |
|                                     | ---; ---; 168, 194   | Mattingly   | 1957                           |
|                                     | Tree holes; attack man during day, <i>W. bancrofti</i> partially developed; 194°   | Hsiao   | 1946                           |
| <i>christianus</i><br>Dyar          | ---; ---; 76   | Stone et al.  | 1959                           |
| <i>christophersi</i><br>Edwards     | Tree holes; Aug.-Sept.; 143. ---; 7000 feet; 235   | Barraud   | 1924a                          |
| <i>chrysolineatus</i><br>(Theobald) | Tree holes, rock holes in stream beds, bamboos, <i>Colocasia</i> and occasionally artificial containers; 70. ---; ---; 146, 149<br>---; ---; 70, 143, 144, 190, 237 (Tree holes, bamboos, rock pools, also roof gutter and broken chatti)<br>---; ---; 143°<br>---; naturally infected with <i>Wuchereria malayi</i> ; 190 | Knight & Marks<br>Barraud<br>Senior-White<br>Raghavan | 1952<br>1934<br>1922 +<br>1961 |
|                                     | Rock holes in a mountain stream; April; 277  | Causey  | 1937                           |
| <i>cinereus</i><br>Meigen           | ---; ---; 118, 162, 256 (In puddles, bushes, leaves of bushes and grasses, bites man)<br>---; ---; 158<br>Clean and dirty puddles, artificial water containers; May-Aug.; 256  | Shtakelberg<br>Sasa et al.<br>Pletnjow                | 1937<br>1950a<br>1928          |
|                                     | Swamps, borrow pits, streams; ---; 256   | Gutzovich   | 1937                           |
|                                     | Puddles, polluted lakes with dense vegetation; ---; 256*   | Anonymous   | 1945a                          |

TABLE 1 - MOSQUITOES (continued)

| SPECIES             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                | AUTHOR                  | DATE   |
|---------------------|--|-------------------------|--------|
| <i>AEDES</i>        |  |                         |        |
| <i>cinerinus</i>    | ---; ---; 317  | Anonymous               | 1944   |
| Meigen<br>(cont.)   | ---; ---; 318  | Gutzevich               | 1948 + |
|                     | ---; ---; 321°   | Rybinsky                | 1933   |
|                     | ---; ---; 345  | Mess                    | 1940   |
| <i>clavatus</i>     | ---; ---; 143  | Barraud                 | 1934   |
| Barraud             |  |                         |        |
| <i>clavirostris</i> | ---; ---; 242  | Stone &<br>Bohart       | 1944   |
| Stone &<br>Bohart   |  |                         |        |
| <i>coecus</i>       | Muddy roadside, mud puddles without vegetation;  | Borel                   | 1930a  |
| Theobald            | ---; 144   |                         |        |
| <i>cogilli</i>      | Tree holes, bamboo stumps; Aug.-Sept.; 143   | Barraud                 | 1923b  |
| Edwards             |  |                         |        |
| <i>comatus</i>      | ---; ---; 143  | Barraud                 | 1934   |
| Barraud             |  |                         |        |
| <i>communis</i>     | ---; ---; 76   | Stone                   | 1961   |
| (De Geer)           | Reservoirs; ---; 256   | Monchadskii             | 1936 + |
|                     | ---; Apr.-Sept.; 256   | Pletnjow                | 1928   |
|                     | ---; ---; 256, 321 (Reservoirs with vegetation,<br>woods and taiga, vector of malaria) | Shtakelberg             | 1937   |
|                     | ---; Aug.; 294   | Breev                   | 1950   |
|                     | ---; ---; 302  | Stone et al.            | 1959   |
|                     | ---; most active May-September; 321  | Rybinsky                | 1933   |
|                     | ---; ---; 321°   | Reinhard &<br>Gutzevich | 1931   |
| <i>craggi</i>       | ---; ---; 143  | Barraud                 | 1934   |
| Barraud             |  |                         |        |
| <i>creticus</i>     | ---; ---; 118 (Reservoirs, treeholes)  | Shtakelberg             | 1937   |
| Edwards             |  |                         |        |
| <i>cretinus</i>     | ---; ---; 118  | Stone et al.            | 1959   |
| Edwards             | ---; ---; 139, 345   | Martini                 | 1930   |
|                     | Tree holes; ---; 256   | Monchadskii             | 1936 + |
| <i>croceus</i>      | Axils of banana and taro; ---; 242   | Knight &<br>Marks       |        |
| Knight &<br>Laffon  |  |                         | 1952   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)      | AUTHOR          | DATE   |
|---|--|-----------------|--------|
| <i>AEDES</i><br><i>culicinus</i><br>Edwards | ---; July-Sept.; 143, 235  | Barraud         | 1928 + |
|   | ---; Sept.; 143  | Edwards         | 1922b  |
|   | Small, sunny, grassless pools; around country settlements; 144               | Borel           | 1926b  |
|   | In pools near forest; ---; 144   | Borel           | 1926   |
| <i>curtipes</i><br>Edwards                  | ---; ---; 145, 190   | Edwards         | 1922   |
|   | ---; ---; 149  | Brug & Edwards  | 1931   |
|   | Mangrove pot holes; near mangrove swamp, rest in openings of crab holes; 242 | Knight & Hull   | 1953   |
|   | Mangrove pot holes; ---; 280   | Edwards & Given | 1928   |
|   | Crab holes; ---; 280   | Colless         | 1957a  |
| <i>cyprius</i><br>Ludlow                    | ---; ---; 76   | Stone           | 1961   |
|   | ---; July, August; 256   | Ludlow          | 1919   |
|   | ---; ---; 256, 321 (Parks and meadows with thick vegetation)                 | Shtakelberg     | 1937   |
| <i>cyrtolabis</i><br>Edwards                | Mangrove area; ---; 190, 280   | Edwards & Given | 1928   |
| <i>deccanus</i><br>(Barraud)                | Tree holes; July-Aug.; 143   | Barraud         | 1923b  |
| <i>dermajoensis</i><br>Brug                 | In pool in virgin forest; ---; 149   | Brug            | 1931c  |
| <i>derrooki</i><br>Brug                     | Rock pools in stream beds; ---; 147  | Knight & Marks  | 1952   |
| <i>desmotes</i><br>(Giles)                  | ---; ---; 143, 144, 145, 190 (Bamboos)                                       | Barraud         | 1934   |
|   | Bamboo stumps; hover about humans; 242                                       | Knight & Hull   | 1952   |
|   | ---; ---; 277  | Bohart          | 1945   |
| <i>detritus</i><br>(Haliday)                | ---; July; 256   | Pletnjow        | 1928   |
|   | ---; ---; 256, 303, 318, 321, 326, 342 (In reservoirs with salt water)       | Shtakelberg     | 1937   |
|   | ---; ---; 317  | Austen          | 1925   |
|   | Saline ground water; ---; 326  | Kazantzer       | 1932 + |
|   | Stagnant reservoirs with vegetation; ---; 342                                | Monchadskii     | 1936 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>AEDES</i><br><i>diantaeus</i><br>Howard, Dyar & Knob | Reservoirs; ---; 256<br>---; July-Aug.; 256<br>---; ---; 256, 321 (Forest glade, spring puddles)<br>Temporary pools of melted snow water; ---; 321°<br>---; June-August; 321   | Monchadskii<br>Pletnjow<br>Shtakelberg<br>Shlyapina<br>Rybinsky  | 1936 +<br>1928<br>1937<br>1933 +<br>1933   |
| <i>dissimilis</i><br>(Leicester)                        | Tree holes; ---; 76<br>Tree holes; Aug.-Oct.; 143. ---; Sept.; 235<br>Tree holes; ---; 190   | Chow<br>Barraud<br>Knight & Marks  | 1949c<br>1924a<br>1952   |
| <i>dissimilis</i><br>var. <i>Karwari</i><br>(Barraud)   | Tree holes; ---; 143   | Knight & Marks   | 1952   |
| <i>diversus</i><br>Theobald                             | ---; ---; 317. Bushes and open meadowlands; ---; 350   | Martini  | 1930   |
| <i>dorsalis</i><br>(Meigen)                             | ---; ---; 31<br>---; ---; 35<br>Swamps, semipermanent ground pools, brackish pools; ---; 76<br>---; ---; 76, 194 (Natural pools and marshes, anthropophilic and diurnal)<br>Desert pools, artificial containers; ---; 151<br>Fresh water ground pool, ditches, coastal marshlands, irrigation ditches, rice paddies; ---; 158<br>Ground pools and marshes; ---; 158°<br>Swamps; ---; 162<br>Fresh water ground pools, irrigation ditches, coastal marshlands, rice paddies; attacks man during day; 168°<br>Ground pools and marshes; very anthropophilic and bite during the day, rare; 168°<br>Natural pools and marshes; ---; 194 | Wu<br>Gutzevich & Gurow<br>Bohart<br>Hsiao<br>Barraud<br>La Casse & Yamaguti<br>Hsiao & Bohart<br>Pokrovskaya et al.<br>Barnett & Toshioka<br>Hsiao<br>Hsiao | 1940<br>1932 +<br>1946<br>1945<br>1920 +<br>1950<br>1946<br>1927<br>1951<br>1948<br>1946 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                                   | AUTHOR             | DATE   |
|--|---|--------------------|--------|
| <i>AEDES</i><br><i>dorsalis</i><br>(Meigen)<br>(cont.) | ---; daytime blood-sucker; 194°   | Chin               | 1936   |
|  | Swamps and street gutters; bites man in daytime; 207°   | Lepsi              | 1935 + |
|  | Horse foot prints; ---; 256   | Shchel-kanovtzev   | 1928 + |
|  | ---; Jan. and Aug.; 256   | Pletnjow           | 1928   |
|  | Temporary pools of melted snow water; ---; 321  | Shlyapina          | 1933 + |
|  | ---; ---; 321°  | Rybinsky           | 1933   |
|  | ---; ---; 345   | Mess               | 1940   |
|  | ---; ---; 353   | Marshall           | 1938 + |
| <i>downsi</i><br>Bohart &<br>Ingram                    | Taro axils, cut bamboo, treeholes, rock holes,<br>banana axils, Sept.; bites in woods during day;<br>257° | Bohart &<br>Ingram | 1946   |
| <i>duplex</i><br>Martini                               | ---; ---; 256, 317  | Stone et al.       | 1959   |
|  | ---; May-September; 321   | Rybinsky           | 1933   |
| <i>dux</i><br>Dyar &<br>Shannon                        | ---; ---; 11, 146, 190, 242   | Bohart             | 1945   |
|  | ---; ---; 144   | Stone et al.       | 1959   |
|  | Fresh and brackish water; common; 277   | Causey             | 1937   |
|  | ---; ---; 280   | Edwards            | 1932 + |
| <i>echinus</i><br>(Edwards)                            | ---; ---; 31 (Reservoirs, tree hollows)   | Shtakelberg        | 1937   |
|  | Water pools with vegetation, tree holes; ---; 317   | Martini            | 1930   |
| <i>edwardsi</i><br>Barraud                             | ---; ---; 11, 144   | Barraud            | 1934   |
|  | Excavation in rocks at the bed of a hill stream<br>at 1000 to 2500 feet altitude; ---; 76                 | Feng               | 1933 b |
| <i>elsiae</i><br>Barraud                               | ---; ---; 59. Rock pools, streambed pools; ---;<br>76, 144  | Bohart             | 1946   |
|  | Bamboo stumps at 2500 feet elevation; ---; 76   | Crook              | 1959   |
|  | ---; June-Aug.; 76  | Wu                 | 1936   |
|  | Tree holes; ---; 143  | Knight &<br>Marks  | 1952   |
|  | Rock pools; June, Aug.; 143   | Barraud            | 1924a  |
|  | Rock pools; ---; 144  | Borel              | 1930a  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                   | DATE   |
|---|--|--------------------------|--------|
| <i>Aedes</i><br><i>esoensis</i><br>Yamada       | Marshes, ground pools; ---; 158  | La Casse &<br>Yamaguti   | 1950   |
|   | Artificial containers, hilly marshes, pools, ditches<br>and holes with aquatic vegetation; ---; 256  | Hsiao &<br>Bohart        | 1946   |
|   | Small shallow pools; May-Sept.; 256°   | Petrichcheva             | 1948   |
| <i>esoensis</i><br>var. <i>flavus</i><br>Yamada | ---; ---; 158  | Hsiao &<br>Bohart        | 1946   |
| <i>eucleptes</i><br>Dyar                        | Wells, stone holes; ---; 76  | Riley                    | 1932a  |
| <i>excruciatus</i><br>(Walker)                  | ---; ---; 158  | La Casse &<br>Yamaguti   | 1950   |
|   | River edges, ponds, slightly salty waters with<br><i>Aster marinus</i> ; ---; 256. ---; ---; 317   | Martini                  | 1930   |
|   | Reservoirs with vegetation; ---; 256, 321, 350   | Monchadskii              | 1936 + |
|   | ---; experimentally infected with spring-summer<br>encephalitis; 256   | Levkovich &<br>Gutzevich | 1941 + |
|   | ---; June-Aug.; 256  | Pletnjow                 | 1928   |
|   | ---; Apr.-May; 256   | Martini                  | 1925   |
|   | ---; ---; 256, 321 (Reservoirs with vegetation,<br>steppe or taiga, forest, bites man)   | Shtakelberg              | 1937   |
|   | ---; ---; 321°   | Reinhard &<br>Gutzevich  | 1931   |
| <i>fasciatus</i><br>Fabricius                   | ---; ---; 31, 158, 256, 337, 350. ---; enters<br>houses, March; 317 (Tree holes, in garden near<br>residences, water edges, rivers and ponds,<br>artificial containers, flower vases in houses<br>and cemeteries, in houses, bites man, vector<br>of yellow fever) | Martini                  | 1930   |
|   | ---; carrier of filaria and yellow fever; 77, 158  | Faust                    | 1926   |
|   | Cisterns; ---; 302   | Legendre                 | 1924   |
|   | ---; ---; 342  | Séguy                    | 1924   |
| <i>feegradei</i><br>Barraud                     | Tree holes; ---; 59  | Barraud                  | 1934   |
|   | ---; ---; 257  | Stone et al.             | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                        | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                               | AUTHOR              | DATE   |
|--------------------------------|---|---------------------|--------|
| <i>AEDES</i>                   |   |                     |        |
| <i>fengi</i><br>Edwards        | Tree holes, bamboos; ---; 76  | Bohart              | 1946   |
| <i>ferinus</i><br>Knight       | ---; ---; 242   | Bick                | 1949   |
| <i>fisheri</i><br>Barraud      | Jungle pool and small grassy pool; June and August; 143   | Barraud             | 1928   |
| <i>flavescens</i><br>(Muller)  | ---; ---; 118, 162, 166, 256, 321 (Reservoirs, ponds with vegetation, dense grass or bush, bites man) | Shtakelberg         | 1937   |
| <i>flavipennis</i><br>(Giles)  | ---; ---; 190   | Edwards             | 1928   |
|                                | Axils of taro, banana abaca and <i>Pandanus</i> ; ---; 242  | Knight & Marks      | 1952   |
|                                | ---; near banana trees; 242   | Stone & Bohart      | 1944   |
|                                | Banana stumps; ---; 280   | Knight et al.       | 1944 + |
| <i>flavopictus</i><br>Yamada   | Tree holes; ---; 143. ---; ---; 168   | Barraud             | 1931   |
|                                | Water holes, bamboo stumps, artificial containers; bamboo groves, day biter; 158°                     | La Casse & Yamaguti | 1950   |
|                                | Tree holes and rock holes, leaf axils, cut bamboo; ---; 158, 257°                                     | Hsiao & Bohart      | 1946   |
|                                | Bamboo stumps, artificial containers; bites during day; 168°  | Barnett & Toshioka  | 1951   |
|                                | ---; ---; 293   | Anonymous           | 1944   |
| <i>formosensis</i><br>Yamada   | Bamboo stumps; ---; 76, 77  | Chow                | 1949c  |
|                                | <i>Colocasia</i> ; ---; 77, 149   | Brug                | 1931a  |
|                                | ---; ---; 143 (Leaf axils of <i>Colocasia</i> and other plants, bamboo stumps)                        | Barraud             | 1934   |
|                                | ---; ---; 146   | Knight & Marks      | 1952   |
| <i>fragilis</i><br>(Leicester) | ---; ---; 190   | Edwards             | 1928   |
| <i>freyi</i><br>Edwards        | ---; ---; 256   | Martini             | 1930   |
|                                | ---; May-June; 321  | Rybinsky            | 1933   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                               | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR               | DATE   |
|---------------------------------------|---|----------------------|--------|
| <i>AEDES fumidus</i><br>Edwards       | ---; ---; 145, 190. Treeholes, nipa axils and stumps, bamboo stumps and artificial containers; vegetation near river; 242 | Knight & Hull        | 1952   |
|                                       | Artificial containers, tree holes, coconut shells and bamboo stumps; ---; 280   | Colless              | 1957a  |
| <i>funereus</i><br>(Theobald)         | Fresh water swamps; ---; 147  | Lee                  | 1944   |
| <i>funereus ornatus</i><br>(Theobald) | Grassy pools; ---; 147  | Lee                  | 1944   |
| <i>fumosus</i><br>Edwards             | Brackish water in tree hole near shore; ---; 145  | Brug                 | 1939   |
|                                       | Leaf bases of palms; ---; 190   | Edwards              | 1932 + |
|                                       | Nipa palm, swamps; ---; 277   | Causey               | 1937   |
|                                       | Leaf bases of palms; ---; 280   | Edwards              | 1928a  |
| <i>galloisi</i><br>Yamada             | ---; bite man under experimental conditions; 158  | Hsiao & Bohart       | 1946   |
|                                       | ---; ---; 158, 256 (Reservoirs, tree hollows)   | Shtakelberg          | 1937   |
|                                       | Tree holes, artificial containers; ---; 256   | Pavlovskii           | 1947 + |
| <i>gardnerii</i><br>(Ludlow)          | Tree holes and bamboo stumps; ---; 145  | Brug                 | 1939   |
|                                       | ---; ---; 146   | Bohart               | 1945   |
|                                       | Bamboos, hollow palm stumps; rest in woods and nipa palm areas; 242   | Knight & Hull        | 1952   |
| <i>geniculatus</i><br>Oliver          | ---; ---; 28, 118, 162, 256, 321 (Reservoirs, tree hollows, puddles, bites man)   | Shtakelberg          | 1937   |
|                                       | Tree holes; ---; 35   | Veisig               | 1935   |
|                                       | Tree holes with decomposed vegetation; ---; 118   | Kaladadze & Tairova  | 1939   |
|                                       | Tree holes; ---; 150  | Gutzevich            | 1948 + |
|                                       | Tree holes, pools, ditches; ---; 256, 318, 350  | Monchadskii          | 1936 + |
|                                       | ---; ---; 317   | Edwards              | 1921 + |
|                                       | ---; rare; 321  | Rybinsky             | 1933   |
|                                       | ---; ---; 321°  | Reinhard & Gutzevich | 1931   |
|                                       | Tree holes; ---; 345°   | Pavlovskii & Mess    | 1931   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR         | DATE   |
|--|---|----------------|--------|
| <i>AEDES</i><br><i>gilli</i><br>Barraud                | Tree holes; at 7000-8000 feet elevation, Aug.-Sept.; 143  | Barraud        | 1924f  |
| <i>grahami</i><br>Ludlow                               | ---; July, August; 256  | Ludlow         | 1919   |
| <i>grandilarva</i><br>Sazanova                         | ---; ---; 256   | Stone et al.   | 1959   |
| <i>greeni</i><br>(Theobald)                            | Bamboo stumps at lake; ---; 70, 143, 146, 149<br>---; ---; 70, 146, 149 (Tree holes)  | Brug           | 1931a  |
|  | Tree holes; ---; 143  | Barraud        | 1934   |
|  | ---; ---; 147   | Barraud        | 1923b  |
|  | ---; ---; 147   | Edwards        | 1934a  |
| <i>greeni</i><br>var. <i>kanaranus</i><br>(Barraud)    | ---; ---; 70. ---; July-Oct.; 143   | Barraud        | 1924a  |
| <i>gubernatoris</i><br>(Giles)                         | Tree holes, bamboo stumps; ---; 70  | Wijesundara    | 1942   |
|  | Rock pools; ---; 70   | Senior-White   | 1920 + |
|  | Artificial container in and around the houses, tree holes and all types of holes containing clear or dirty water; ---; 143° | Afridi         | 1939   |
|  | ---; ---; 143, 144  | Edwards        | 1922c  |
| <i>gubernatoris</i><br>var. <i>kotiensi</i><br>Barraud | Tree holes; ---; 143  | Knight & Marks | 1952   |
| <i>hamistylus</i><br>Laffoon                           | ---; ---; 242   | Knight & Hull  | 1953   |
| <i>harperi</i><br>Knight                               | Bamboos; ---; 242   | Knight & Marks | 1952   |
| <i>harveyi</i><br>(Barraud)                            | ---; ---; 70. Cisterns; ---; 143  | Knight & Marks | 1952   |
|  | Tree holes and bamboo stumps; ---; 76   | Chow           | 1949   |
|  | Contaminated well, leaf axils, rock pools in stream bed; ---; 143, 146, 149   | Brug           | 1931a  |
|  | Tree holes; Aug.-Oct.; 143  | Barraud        | 1924a  |
|  | Tree holes; ---; 146  | Barraud        | 1934   |
| <i>harveyi</i><br>var. <i>nigrorhynchus</i><br>Brug    | Tree hole; ---; 146   | Brug           | 1931a  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS) | AUTHOR              | DATE   |
|---|---|---------------------|--------|
| <i>AEDES hatorii</i><br>Yamada          | ---; May, Aug.; 76  | Wu                  | 1936   |
|   | ---; ---; 77  | Bohart              | 1946   |
|   | Cool, clear water in rock pools of stream bed, rice paddies; ---; 158°  | La Casse & Yamaguti | 1950   |
|   | ---; ---; 158°  | Hsiao & Bohart      | 1946   |
|   | Rock pools; bites man during day; 168°                                  | Barnett & Toshioka  | 1951   |
| <i>hebrideus</i><br>Edwards             | ---; ---; 147, 242  | Stone & Farner      | 1945   |
| <i>hegneri</i><br>Causay                | Rock pools; ---; 277  | Knight & Marks      | 1952   |
| <i>hirsutipleura</i><br>Barraud         | ---; ---; 143   | Barraud             | 1928a  |
|   | ---; ---; 149   | Brug & Edwards      | 1931   |
| <i>hirsutus</i><br>(Theobald)           | ---; ---; 242   | Bezzi               | 1913 + |
| <i>hirsutus adenensis</i><br>Edwards    | ---; ---; 2   | Edwards             | 1941   |
| <i>hoogstraali</i><br>Knight & Rozeboom | ---; ---; 242   | Stone et al.        | 1959   |
| <i>horishensis</i><br>Yamada            | ---; ---; 77  | Edwards             | 1922c  |
| <i>ibis</i><br>Barraud                  | ---; in jungle; 143   | Barraud             | 1931a  |
| <i>idjenensis</i><br>Brug               | ---; ---; 146   | Stone et al.        | 1959   |
|   | ---; ---; 190   | Knight & Marks      | 1952   |
| <i>imitator</i><br>Leicester            | ---; ---; 190, 280  | Edwards             | 1928   |
| <i>imprimens</i><br>(Walker)            | ---; ---; 31, 145   | Edwards             | 1922c  |
|   | ---; Jul.-Sept.; 143. ---; ---; 235                                     | Barraud             | 1928   |
|   | Salty lagoons; attacks during daytime; 144°                             | Borel               | 1926   |
|   | ---; ---; 146, 149  | Brug & Edwards      | 1931   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                | DATE                               |
|---|---|---------------------------------------|------------------------------------|
| <i>AEDES imprimens</i><br>(Walker)<br>(cont.) | ---; ---; 147, 190, 277 (Bite viciously in shade during the day). Buffalo wallows; ---; 277<br>---; bites readily in deep shade; 158°   | Bohart                                | 1945                               |
|   | ---; ---; 158. Shaded temporary puddles; ---; 242. Buffalo wallow; ---; 277   | Hsiao & Bohart                        | 1946                               |
| <i>incertus</i><br>Edwards                    | ---; ---; 145, 190  | Edwards                               | 1922 c                             |
| <i>indecorabilis</i><br>(Leicester)           | ---; ---; 190   | Stone et al.                          | 1959                               |
| <i>indicus</i><br>(Theobald)                  | ---; ---; 70<br>Open pools, rain filled ditches; ---; 143<br>---; ---; 235<br>---; ---; 242   | Carter<br>Barraud<br>Barraud<br>Bezzi | 1950 a<br>1934<br>1928 a<br>1913 + |
| <i>indosinensis</i><br>Borel                  | Hollow bamboo stalks; ---; 144  | Borel                                 | 1930 a                             |
| <i>inquinatus</i><br>Edwards                  | Tree holes; Aug.; 143   | Barraud                               | 1923 b                             |
| <i>intrudens</i><br>Dyar                      | Pond in forest; May; 256<br>---; ---; 256, 321 (In reservoirs)  | Martini<br>Shtakelberg                | 1930<br>1937                       |
| <i>irritans</i><br>Theobald                   | ---; ---; 70  | Senior-White                          | 1927 +                             |
| <i>iyengari</i><br>Edwards                    | ---; ---; 59, 143, 146 (Bamboo stumps)<br>Plains; Sept. and Feb.; 143<br>Bamboo stumps; ---; 146  | Barraud<br>Senior-White<br>Brug       | 1934<br>1934<br>1932 +             |
| <i>jamesi</i><br>(Edwards)                    | ---; ---; 70 (Jungle pools)<br>Pools; ---; 143  | Barraud                               | 1934<br>1928                       |
| <i>japonicus</i><br>(Theobald)                | Rock and stream bed pools; experimental transmission of Japanese "B" encephalitis; 76. ---; ---; 158 (Rock & stream bed pools)<br>Stone excavation containing rain water with no vegetation, excavation in rocks at the bed of a hill stream at 1000 to 2500 feet altitude; ---; 76 | Bohart<br>Feng                        | 1946<br>1933 b                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE  |
|---|--|--|---|
| <i>ASDES japonicus</i><br>(Theobald)<br>(cont.)     | Tree holes, bamboo stumps, rock troughs; ---; 76<br>Jungle, mountains, bamboo stumps; ---; 76<br>---; ---; 76, 77, 139 (Clear water containers, water in stone cavities, bite man)<br>Rocky pools; ---; 77<br>---; experimentally transmits Japanese "B" encephalitis; 154<br>Rock holes in the vicinity of hill country streams, clear water of artificial containers; ---; 158°<br>Artificial containers with organic matter in sun or shade, cut bamboo stumps, May-Oct.; 158 | Chang<br>Li & Wu<br>Hsiao<br>Chow<br>Hammon<br>Hsiao & Bohart<br>La Casse & Yamaguti<br>Sasa & Sabin<br>Sabin<br>Petrishcheva<br>Pavlovskii<br>Feng<br>Shtakelberg<br>Bick<br>Knight & Marks<br>Stone et al.<br>Edwards & Given<br>Brug<br>Edwards<br>Barraud<br>Borel<br>Stone et al. | 1939<br>1935 b +<br>1945<br>1950<br>1949 +<br>1946<br>1950<br>1950<br>1948<br>1947 +<br>1935 a<br>1937<br>1949<br>1952<br>1959<br>1928-<br>1939<br>1934 a<br>1923 b<br>1926<br>1959 |
| <i>japonicus</i><br>var. <i>koreicus</i><br>Edwards | Rocky pools and hilly regions; ---; 76<br>---; ---; 168  |  |   |
| <i>johnsoni</i><br>Laffoon                          | ---; ---; 242  | Bick   | 1949  |
| <i>jugraensis</i><br>(Leicester)                    | Fallen leaves; ---; 190<br>---; ---; 242<br>Fallen leaves in forest; ---; 280  | Knight & Marks<br>Stone et al.<br>Edwards & Given  | 1952<br>1959<br>1928-   |
| <i>kabaenensis</i><br>Brug                          | Crab holes near shore; ---; 145  | Brug   | 1939  |
| <i>kararensis</i><br>Edwards                        | ---; ---; 143  | Edwards  | 1934 a  |
| <i>khasani</i><br>Edwards                           | Tree holes; Sept.-Nov.; 143. ---; Sept.; 235<br>Tree holes and bamboo stalks; ---; 144   | Barraud<br>Borel   | 1923 b<br>1926  |
| <i>xiangiensis</i><br>Tung                          | ---; ---; 76   | Stone et al.   | 1959  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR              | DATE   |
|--|---|---------------------|--------|
| <i>AEDES kochi</i><br>var. <i>poicilia</i><br>(Theobald) | Leaf axils of <i>Crinum sp.</i> at lake; ---; 145, 146, 149, 190, 242   | Brug                | 1931 a |
| <i>koreicoides</i><br>Sasa, Kono &<br>Hayashi            | ---; Aug.; 158  | Sasa et al.         | 1950   |
| <i>koreicus</i><br>Edwards                               | Artificial containers, water pools in rocks and in hills; experimental transmission of <i>Dirofilaria immitis</i> ; 76°. Artificial containers, water pool in rock and in hills; ---; 194 | Hsiao               | 1946   |
|  | Water kongs; late summer; 76  | Lan-Chou            | 1930   |
|  | Rock and stream bed pools; ---; 76, 168   | Bohart              | 1946   |
|  | ---; ---; 77. Artificial containers and ground water; ---; 158°   | Hsiao & Bohart      | 1946   |
|  | ---; ---; 158. Ground pool, troughs, irrigation tanks; ---; 168   | La Casse & Yamaguti | 1950   |
|  | Artificial containers and waterbarrels along the streets; sometimes bites man in the daytime; 194°  | Chin                | 1936   |
|  | ---; ---; 256   | Stone               | 1961   |
| <i>lacteus</i><br>Knight                                 | Tree holes; ---; 242  | Knight & Marks      | 1952   |
| <i>taffooni</i><br>Knight &<br>Rozeboom                  | ---; ---; 242   | Knight & Hull       | 1952   |
| <i>laniger</i><br>(Wiedemann)                            | ---; ---; 70, 143, 144, 145, 146, 149, 190, 242   | Knight & Hull       | 1951   |
|  | Water in ruts of forest paths; ---; 144   | Borel               | 1930 a |
| <i>laoagensis</i><br>Knight                              | ---; ---; 242   | Knight & Hull       | 1951   |
| <i>leicesteri</i><br>Edwards                             | Stream, in jungle; ---; 190   | Edwards             | 1917   |
| <i>lepchana</i><br>(Barraud)                             | Bamboo stumps; Oct., 143  | Barraud             | 1923 a |
| <i>lepidonotus</i><br>Edwards                            | ---; ---; 31, 162, 256 (In reservoirs, bites man)   | Shtakelberg         | 1937   |
|  | Swamplands; ---; 317  | Martini             | 1930   |
|  | Reservoirs; ---; 350  | Monchadskii         | 1936 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|---|--|------------------------|--------|
| <i>AEDES</i><br><i>leucomelas</i><br>Meigen | Edge of forests, in bushes; ---; 256   | Martini                | 1930   |
|   | Shaded reservoirs; ---; 256, 321   | Monchadskii            | 1936 + |
|   | ---; ---; 256, 321 (Reservoir on forest edge, bushes)  | Shtakelberg            | 1937   |
| <i>Leucomeses</i><br>(Giles)                | ---; ---; 242  | Edwards                | 1929   |
| <i>Leucoleurus</i><br>Rozeboom              | Tree holes; June; 242  | Rozeboom               | 1946   |
| <i>lineatopennis</i><br>(Ludlow)            | ---; ---; 11, 59, 143, 149, 190, 242 (Natural pools, bites man by day). Rain water filled depressions; ---; 76                                       | Hsiao                  | 1945   |
|   | ---; ---; 70, 145, 146, 147, 277 (Bites man). Temporary grassy ground depressions; ---; 242  | Knight & Hull          | 1953   |
|   | ---; naturally infected with <i>Wuchereria malayi</i> , Apr.-March, Oct.; 70   | Carter                 | 1948   |
|   | ---; naturally infected with filaria; 70   | Dassarayake & Chow     | 1954   |
|   | Natural pools, ricefields; ---; 76   | Chow                   | 1949 c |
|   | ---; ---; 146  | Brug & Edwards         | 1931   |
|   | ---; ---; 147  | Bohart                 | 1945   |
|   | ---; in houses, in train near light; 277   | Barraud & Christophers | 1931   |
| <i>littoralis</i><br>Barraud                | ---; ---; 143  | Barraud                | 1928   |
| <i>longirostris</i><br>(Leicester)          | ---; ---; 11, 190 (Pools in mangrove swamps, crab holes)   | Barraud                | 1934   |
|   | ---; ---; 70, 144, 145   | Stone et al.           | 1959   |
|   | Brackish pools in swamps and near beach, artificial container in grassy area, depression in fallen log; crabholes; 242. Brackish rock pool; ---; 277 | Knight & Hull          | 1952   |
|   | Edge of mangrove swamps, in sunshine and in shade, pools with black mud, crabholes, obstructed drains, artificial containers; ---; 280               | Colless                | 1957 a |
| <i>lophoventralis</i><br>(Theobald)         | Tree holes; artificial containers; 143   | Knight & Marks         | 1952   |
|   | ---; March-Oct.; 143 (Tree holes, sometimes in water-butts)  | Barraud                | 1934   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>AEDES</i><br><i>lophoventralis</i><br>(Theobald)<br>(cont.) | Bamboo traps; ---; 143<br>Water butts; Aug.; 235  | Fletcher<br>Barraud   | 1923<br>1923 b                                   |
| <i>louisii</i><br>(Theobald)                                   | ---; ---; 11, 70, 143<br>---; ---; 147<br>---; ---; 242   | Barraud<br>Stone et al.<br>Edwards                                  | 1928<br>1959<br>1929                             |
| <i>lugubris</i><br>Barraud                                     | ---; ---; 11, 59  | Barraud   | 1928 a   |
| <i>luteolateralis</i><br>(Theobald)                            | ---; ---; 242   | Bezzi   | 1913 +   |
| <i>lutescens</i><br>Fabricius                                  | ---; July-Aug.; 256<br>---; enters houses; 256<br>---; ---; 317<br>---; enters houses, May-July; 321  | Pletnjow<br>Shchel-kanovtzer<br>Anonymous<br>Rybinsky               | 1928<br>1928 +<br>1944<br>1933                   |
| <i>luteus</i><br>(Ludlow)                                      | Axils of palm, taro and banana; ---; 242  | Knight & Marks  | 1952   |
| <i>luzonensis</i><br>Rozeboom                                  | Tree-holes and in artificial containers; July; 242  | Rozeboom  | 1946   |
| <i>macdougalli</i><br>Edwards                                  | ---; ---; 59, 144. Rock pools and stream bed pools; ---; 76<br>Rock holes, rock pools or bamboo; ---; 70, 143, 149<br>Tree holes and bamboo stumps; ---; 70<br>---; March, Sept.; 70<br>---; ---; 76, 139 (Rock cavities in streams)<br>---; ---; 146 | Bohart<br>Brug<br>Wijesundara<br>Barraud<br>Hsiao<br>Knight & Marks | 1946<br>1931 a<br>1942<br>1924 a<br>1945<br>1952 |
| <i>macfarlanei</i><br>(Edwards)                                | ---; ---; 59, 143. Rock pools, stream bed pools; ---; 76<br>Rock holes; ---; 76<br>Rock pools or bamboo; ---; 139, 144, 149<br>Tree holes, bamboo stumps; ---; 144  | Bohart<br>Hu<br>Brug<br>Borel                                       | 1946<br>1937<br>1931 a<br>1926                   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>AEDES</i>                            |  |  |  |
| <i>macrodixoa</i><br>Dyar &<br>Shannon  | ---; June; 242   | Dyar &<br>Shannon  | 1925   |
| <i>maculatus</i><br>Meigen              | Swamps, semipermanent ground pools; ---; 76<br>---; ---; 76 (Bites during the day, marshy, weeded areas)<br>---; ---; 118, 256, 321 (Reservoirs, puddles, filled with melted snow or rain water, bites man)<br>Natural pools and marshes; ---; 194°<br>---; bites man in the open in the daytime, in marshy places; 194°<br>Reservoirs with vegetation; ---; 256, 321<br>---; May-Sept.; 256 | Bohart<br>Hsiao<br>Shtakelberg<br>Hsiao<br>Chin<br>Monchadskii<br>Pletnjow | 1946<br>1945<br>1937<br>1946<br>1936<br>1936 +<br>1928 |
| <i>margaretae</i><br>Dyar &<br>Shannon  | ---; May; 242  | Dyar &<br>Shannon  | 1925   |
| <i>mariae</i><br>(Sargent &<br>Sargent) | Rock holes; Nov.; 154<br>Warm sea water, coastal tide pools; bites freely in day time; 174°<br>---; in houses, Sept.; 174<br>Along the coast; ---; 317<br>---; July; 321<br>---; ---; 321, 326, 342 (In rock by sea shore)   | Buxton<br>Barraud<br>Parr<br>Martini<br>Rybinsky<br>Shtakelberg            | 1924 a<br>1921<br>1943<br>1930<br>1933<br>1937         |
| <i>mediolineatus</i><br>(Theobald)      | ---; ---; 59, 143<br>---; ---; 70<br>---; ---; 133, 146, 277<br>Shallow muddy swamps; ---; 144<br>---; ---; 149  | Barraud<br>Senior-White<br>Stone et al.<br>Borel<br>Drug &<br>Edwards      | 1928<br>1927 +<br>1959<br>1930 a<br>1931               |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR           | DATE   |
|--------------------------|--|------------------|--------|
| <i>AEDES</i>             |  |                  |        |
| <i>mediopunctatus</i>    | ---; ---; 70   | Carter           | 1950 a |
| Theobald                 | ---; ---; 143 (Bamboos)  | Barraud          | 1934   |
|                          | ---; ---; 144  | Borel            | 1930 + |
| <i>mediopunctatus</i>    | ---; ---; 77   | Stone et al.     | 1959   |
| <i>pplexus</i>           |  |                  |        |
| (Leicester)              | Bamboos; open woods; 242   | Knight & Hull    | 1952   |
| <i>mediopunctatus</i>    |  |                  |        |
| <i>submediopunctatus</i> | ---; jungle, Aug.; 143   | Barraud          | 1923 d |
| Barraud                  |  |                  |        |
| <i>mediopunctatus</i>    |  |                  |        |
| var. <i>sureilensis</i>  | ---; ---; 143  | Barraud          | 1934   |
| Barraud                  |  |                  |        |
| <i>medleri</i>           | Axils of <i>Pandanus</i> , banana, taro and abaca; ---; 242  | Knight & Marks   | 1952   |
| Knight & Laffoon         |  |                  |        |
| <i>meigenavus</i>        | Springs in woods; ---; 256   | Shchel-kanovtzev | 1928 + |
| Dyar                     |  |                  |        |
|                          | ---; ---; 321  | Rybinsky         | 1933   |
| <i>melanopterus</i>      |  |                  |        |
| (Giles)                  | Tree holes; ---; 242   | Knight & Hull    | 1952   |
| <i>meronephada</i>       |  |                  |        |
| (Dyar & Shannon)         | Axil of banana-like plant along a jungle stream at 8,000 feet elevation; base of tree in a jungle at 1,000 feet elevation; 242 | Knight & Hull    | 1952   |
| <i>miachaetessus</i>     |  |                  |        |
| Dyar & Shannon           | ---; ---; 31   | Bohart           | 1945   |
|                          | ---; in crabholes; 242   | Knight & Hull    | 1953   |
|                          | ---; Aug.; 242   | Dyar & Shannon   | 1925   |
| <i>micropterus</i>       |  |                  |        |
| (Giles)                  | ---; ---; 59 (Tree holes)  | Barraud          | 1934   |
|                          | ---; ---; 70   | James            | 1914 a |
|                          | Tree holes; rainy season; 143, 235   | Barraud          | 1928 a |
| <i>mikiranus</i>         |  |                  |        |
| Edwards                  | ---; ---; 143  | Edwards          | 1922 b |
| <i>mindoroensis</i>      |  |                  |        |
| Knight & Hull            | ---; ---; 11, 147, 242   | Knight & Hull    | 1951 a |
| <i>natronius</i>         |  |                  |        |
| Edwards                  | ---; ---; 332  | Stone et al.     | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS) | AUTHOR              | DATE   |
|--|---|---------------------|--------|
| <i>AEDES</i>                             |   |                     |        |
| <i>nearcticus</i><br>Dyar                | ---; ---; 256°  | Kiseleva            | 1936   |
| <i>nemorosus</i><br>Meigen               | ---; bites man in evening; 256°   | Martini             | 1928 + |
|  | ---; ---; 256, 321  | Martini             | 1930   |
| <i>nigrinus</i><br>Eckstein              | ---; ---; 256   | Shtakelberg         | 1937   |
| <i>nigripes</i><br>Zetterstedt           | ---; ---; 256   | Shtakelberg         | 1937   |
| <i>nigrocanus</i><br>Martini             | ---; ---; 31  | Shtakelberg         | 1937   |
|  | ---; ---; 317   | Stone et al.        | 1959   |
| <i>nigrostriatus</i><br>Barraud          | ---; ---; 59, 143   | Barraud             | 1928   |
| <i>nigrotarsis</i><br>(Ludlow)           | Pools; ---; 242   | Bohart              | 1945   |
|  | Puddles; ---; 242   | Bick                | 1949   |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 242          | Rozeboom & Cabrera  | 1964   |
| <i>nipponicus</i><br>La Casse & Yamaguti | Shaded water with organic matter; rare; 158                             | La Casse & Yamaguti | 1950   |
|  | Artificial containers; bites man during day; 168°                       | Barnett & Toshioka  | 1951   |
| <i>niveoides</i><br>Barraud              | ---; ---; 59. Tree holes, bamboo; ---; 76                               | Bohart              | 1946   |
|  | Bamboo stumps at about 2,500 feet elevation; ---; 76                    | Crook               | 1939   |
|  | ---; ---; 139 (Tree holes, bamboo stumps)                               | Hsiao               | 1945   |
|  | Tree holes; bamboo; 143   | Knight & Marks      | 1952   |
|  | ---; ---; 144, 146, 149 (Bamboos)                                       | Barraud             | 1934   |
| <i>niveoscutellum</i><br>(Theobald)      | ---; ---; 143, 146  | Barraud             | 1934   |
|  | Muddy ruts in forest paths; ---; 144                                    | Borel               | 1930 a |
|  | ---; ---; 149   | Brug & Edwards      | 1931   |
|  | ---; ---; 242   | Dyar & Shannon      | 1925   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                                     | AUTHOR             | DATE     |
|---|---|--------------------|----------|
| <i>AEDES niveus</i><br>(Ludlow)                           | Tree holes, bamboo stump at lake; ---; 11, 146, 149, 158, 280   | Brug               | 1931 a   |
|   | Tree holes and bamboos; ---; 76   | Bohart             | 1946     |
|   | ---; jungle; 76   | Li & Wu            | 1935 b + |
|   | ---; ---; 70, 145   | Knight & Marks     | 1952     |
|   | ---; ---; 139, 143, 190, 242, 277 (Tree holes, bamboo stumps)   | Hsiao              | 1945     |
|   | ---; ---; 143, 144, 158 (Reservoirs, bamboo hollows)  | Shtakelberg        | 1937     |
|   | Bamboo stumps; ---; 144   | Borel              | 1930 a   |
|   | Tree holes at root or trunk of beech; ---; 158  | Sasa & Ishimura    | 1951     |
|   | ---; ---; 235   | Barraud            | 1923 b   |
|   | Tree holes, bamboo stumps; ---; 242   | Bohart             | 1945     |
|   | ---; in banana groves, bamboo thickets and woods, naturally infected with <i>Wuchereria bancrofti</i> ; 242 | Rozeboom & Cabrera | 1964     |
|   | ---; secondary vector of <i>W. bancrofti</i> ; 242  | Cabrera & Rozeboom | 1964     |
| <i>niveus</i><br>var. A<br>Brug                           | ---; ---; 143   | Brug               | 1931 a   |
| <i>niveus</i><br>var. B<br>Brug                           | Bamboo stumps at lake; ---; 144, 146, 149   | Brug               | 1931 a   |
| <i>niveus</i><br><i>nipponicus</i><br>La Casse & Yamaguti | Bamboos, artificial containers; ---; 158  | Knight & Marks     | 1952     |
| <i>nobukonis</i><br>Yamada                                | ---; ---; 158°  | Hsiao & Bohart     | 1946     |
| <i>notoscriptus</i><br>(Skuse)                            | ---; ---; 242   | Cooling            | 1924 a + |
| <i>notoscriptus</i><br><i>montanus</i><br>Brug            | Tree holes, bamboo stumps; ---; 146   | Knight & Marks     | 1952     |
|   | Tree holes, artificial containers; ---; 147   | Edwards            | 1924 +   |
| <i>novalbopictus</i><br>Barraud                           | Tree holes; ---; 70   | Wijesundara        | 1942     |
|   | Tree holes; ---; 143  | Barraud            | 1934     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                              | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                                       | AUTHOR          | DATE   |
|--------------------------------------|---|-----------------|--------|
| <i>AEDES</i>                         |   |                 |        |
| <i>noveniveus</i><br>Barraud         | Tree holes, bamboos; ---; 143, 190  | Knight & Marks  | 1952   |
| <i>nubiculus</i><br>Lafsoon          | ---; ---; 242   | Knight & Hull   | 1953   |
| <i>nummatus</i><br>Edwards           | Tree holes, artificial containers in jungle; July, Sept.; 143   | Barraud         | 1928   |
|                                      | Bamboos; ---; 143   | Barraud         | 1934   |
| <i>obturbans</i><br>Walker           | Bamboo stumps, artificial containers; in forests early morning and evenings, bite is painful, in houses; 158° | Martini         | 1930   |
| <i>okinawanus</i><br>Bohart          | Artificial containers, tree holes, cut bamboo; bites in deep shade during the day, May to Oct.; 257°          | Bohart & Ingram | 1946   |
|                                      | Tree holes; ---; 257  | Knight & Marks  | 1952   |
| <i>orbitae</i><br>Edwards            | ---; ---; 190   | Edwards         | 1928   |
|                                      | Cart tracks in jungle; ---; 280   | Edwards & Given | 1928   |
| <i>oreophilus</i><br>Edwards         | Tree holes; ---; 143  | Barraud         | 1934   |
|                                      | ---; Oct.; 143  | Barraud         | 1924 a |
|                                      | Tree holes; ---; 235  | Knight & Marks  | 1952   |
| <i>ornatus</i><br>Meigen             | Tree holes; ---; 256  | Martini         | 1928 + |
|                                      | ---; ---; 317   | Anonymous       | 1944   |
| <i>ostentatio</i><br>(Leicester)     | ---; ---; 70, 145, 190, 242   | Barraud         | 1934   |
|                                      | ---; ---; 143, 147. Jungle pools; vicious daytime biter; 190°   | Knight & Hull   | 1953 + |
|                                      | Small, sunny, grassless pools; ---; 144   | Borel           | 1926   |
|                                      | ---; ---; 146, 149  | Brug & Edwards  | 1931   |
| <i>pallidostriatus</i><br>(Theobald) | ---; naturally infected with <i>Wuchereria malayi</i> , cattle-baited traps, April-November; 70               | Carter          | 1948   |
|                                      | ---; ---; 70 (Seepages, rain pools, dykes, ditches, borrow pits)  | Barraud         | 1934   |
|                                      | Irrigation channels, temporary rain pools; Aug.-Sept.; 143  | Senior-White    | 1928 a |
|                                      | ---; March and July; 143  | Barraud         | 1928   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                              | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--------------------------------------|---|---|--|
| <i>AEDES pallirostris</i><br>Edwards | Bamboos; ---; 143<br>---; Feb.; 143   | Knight & Marks<br>Barraud   | 1952<br>1924 a                                 |
| <i>pampangensis</i><br>(Ludlow)      | Rain pools, vegetated stream margins, grassy pool in temporary stream bed; ---; 242   | Knight & Hull   | 1953   |
| <i>panayensis</i><br>Ludlow          | ---; ---; 147, 242  | Knight & Hull   | 1953   |
| <i>paradissimilis</i><br>Rozeboom    | Tree holes, cut bamboo, palm stubs; Jan., Apr., June, Sept. and Dec.; 242   | Rozeboom  | 1946   |
| <i>patriciae</i><br>Mattingly        | ---; ---; 143<br>---; ---; 235  | Stone et al.<br>Mattingly   | 1959<br>1954 +                                 |
| <i>paullusi</i><br>Stone & Farner    | ---; ---; 145, 147, 149. Rockpools in drying streambeds, coconut bushes, rot holes in fallen logs, hollow palm trunks and bamboos; in the woods; 242  | Knight & Hull   | 1952   |
| <i>peipingensis</i><br>Feng          | Tree holes, bamboos; ---; 76<br>---; bites man at dusk; 76°   | Bohart<br>Hsiao   | 1946<br>1945                                   |
| <i>perditus</i><br>(Leicester)       | ---; ---; 190   | Edwards   | 1928   |
| <i>periskeletus</i><br>(Giles)       | ---; ---; 143   | Barraud   | 1928 a   |
| <i>perplexus</i><br>(Leicester)      | ---; ---; 190   | Edwards   | 1928   |
| <i>pipersalatus</i><br>Giles         | ---; cattle baited traps, Apr.-Nov., naturally infected with <i>Wuchereria malayi</i> ; 70<br>---; naturally infected with filaria; 70<br>---; ---; 70, 143, 235 (Ground pools, water-filled ditches)<br>---; naturally infected with <i>W. malayi</i> ; 143<br>---; August; 143<br>---; ---; 146 | Carter<br>Dissanayake & Chirw<br>Barraud<br>Raghavan<br>Barraud<br>Salm | 1948<br>1954<br>1934<br>1961<br>1928<br>1917 + |
| <i>platylepidus</i><br>Knight & Hull | Fallen coconut spathe, log depression in mangrove area; ---; 242  | Knight & Hull   | 1951 a   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|--|--|--|--|
| <i>AEDES</i><br><i>poevilius</i><br>(Theobald) | ---; ---; 11, 145<br>Leaf axils of taro; bite at dusk; 59°, 143°, 145°, 190°<br>---; ---; 59, 143, 190, 242. Leaf axils of <i>Colocasia indica</i> and <i>Crinum</i> sp.; ---; 146<br>Leaf axils of taro and <i>Crinum</i> ; ---; 146.<br>Banana stump; ---; 242<br>---; June; 149<br>Leaf axils of banana, abaca; ---; 190<br>Leaf axils of abaca and banana plants; enter houses at night, naturally infected with <i>Wuchereria bancrofti</i> ; 242<br>---; naturally infected with and natural vector of <i>W. bancrofti</i> ; 242<br>---; ---; 242* | Edwards<br>Marks<br>Barraud<br>Stone &<br>Bohart<br>Stanton<br>Knight &<br>Marks<br>Rozeboom &<br>Cabrera<br>Raghavan<br>Manson-<br>Bahr | 1922 c<br>1948 +<br>1934<br>1944<br>1915<br>1952<br>1964<br>1961<br>1959 |
| <i>prioekanensis</i><br>Brug                   | Swamps in virgin forest; ---; 149  | Brug   | 1931 c   |
| <i>prominens</i><br>Barraud                    | ---; ---; 59. Tree holes, bamboos; ---; 76<br>Bamboo stumps; Sept.; 143<br>Tree holes; ---; 143<br>---; ---; 144 (Tree holes and bamboo stumps)<br>---; ---; 145   | Bohart<br>Barraud<br>Barraud<br>Barraud<br>Knight &<br>Marks   | 1946<br>1923 a<br>1923 b<br>1934<br>1952                                 |
| <i>pseudalbopictus</i><br>(Borel)              | ---; ---; 59, 143. Tree holes, bamboos; ---; 76<br>---; Aug. and May; 76<br>Bamboo stumps; ---; 144<br>---; ---; 146 (Bamboo stumps)<br>---; ---; 149 (Bamboo stumps)  | Bohart<br>Wu<br>Barraud<br>Hsiao<br>Barraud  | 1946<br>1936<br>1931<br>1945<br>1934                                     |
| <i>pseudo-</i><br><i>albolineatus</i><br>Brug  | Bamboo stumps, treeholes in virgin forest and holes of mango tree; ---; 145  | Brug   | 1939   |
| <i>pseudodormica</i><br>Theobald               | ---; ---; 76   | Faust  | 1926 a   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|--|--|--|--|
| <i>AEDES</i>   |  |  |  |
| <i>pseudodurius</i><br>(Theobald)                        | ---; ---; 143  | Barraud  | 1928 a   |
| <i>pseudomedio-fasciatus</i><br>(Theobald)               | ---; Apr.-May, naturally infected with <i>Wuchereria malayi</i> ; 70<br>---; naturally infected with filaria; 70<br>---; ---; 70, 143 (Hill streams, swamp)  | Carter<br>Dassanayake & Chow<br>Barraud  | 1948<br>1954<br>1934   |
| <i>pseudoniveus</i><br>(Theobald)                        | Artificial containers, fallen leaves under a banyan tree; ---; 76<br>---; ---; 145, 149, 190<br>Latex cup on rubber tree; ---; 280   | Riley<br>Stone et al.<br>Knight & Marks  | 1932<br>1959<br>1952   |
| <i>pseudotaeniatus</i><br>Giles                          | ---; ---; 59, 70, 143, 235 (Tree holes, rock pools, cement sinks, drains, iron cisterns)<br>Artificial containers, tree holes, rock pools; ---; 143<br>---; Apr., Aug.-Oct.; 143<br>Tree holes, rock pools, artificial containers; ---; 242            | Barraud<br>Barraud<br>Barraud<br>Bohart  | 1934<br>1923 b<br>1924 a<br>1945                                       |
| <i>pulchritarsis</i><br>(Rondani)                        | ---; ---; 35, 118, 143, 150, 321 (Reservoirs and tree hollows)<br>Tree holes with stagnant water; ---; 118<br>Tree holes; ---; 150, 256<br>---; ---; 162, 235 (Tree holes)<br>---; ---; 303<br>---; ---; 317<br>Tree holes; ---; 321<br>---; ---; 321° | Shtakelberg<br>Rukhadze<br>Monchadskii<br>Barraud<br>Keshish'yan<br>Martini<br>Shakhov<br>Reinhard & Gutzevich | 1937<br>1929<br>1936 +<br>1934<br>1941 +<br>1930<br>1928 a +<br>1931 + |
| <i>pulchritarsis</i><br>var. <i>asiaticus</i><br>Edwards | ---; ---; 35, 150<br>---; ---; 235<br>Tree holes; ---; 318<br>Tree holes; ---; 326, 350  | Gutzevich<br>Stone et al.<br>Monchadskii<br>Martini  | 1948 +<br>1959<br>1936 +<br>1930                                       |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                 | AUTHOR            | DATE   |
|------------------------------|---|-------------------|--------|
| <i>AEDES</i>                 |   |                   |        |
| <i>pulchritarsis</i>         |   |                   |        |
| var. <i>stegomyina</i>       | Tree holes; ---; 162  | Monchadskii       | 1926   |
| Stackelberg &<br>Monchadskii |   |                   |        |
| <i>pulchritarsis</i>         |   |                   |        |
| var. <i>versicolor</i>       | ---; at 7,500 feet elevation; 235   | Barraud           | 1934   |
| Barraud                      |   |                   |        |
| <i>pulchriventer</i>         |   |                   |        |
| (Giles)                      | ---; at 10,000 feet elevation; 76   | Feng              | 1935   |
|                              | ---; ---; 76 (Fresh water pools in stream beds)   | Hsiao             | 1945   |
|                              | Tree holes, small pools and pot holes in stream<br>beds; ---; 143. ---; ---; 235        | Knight &<br>Marks | 1952   |
|                              | Rock pools; ---; 143  | Barraud           | 1934   |
|                              | ---; Feb.-June; 143   | Barraud           | 1924 a |
|                              | ---; ---; 144   | Wu                | 1940   |
| <i>pulitatus</i>             |   |                   |        |
| Coquillett                   | ---; ---; 235   | Barraud           | 1934   |
|                              | Pools with vegetation; ---; 256   | Pavlovskii        | 1947 + |
|                              | Shaded reservoirs; ---; 256   | Monchadskii       | 1936 + |
|                              | In a valley; ---; 256   | Martini           | 1930   |
|                              | ---; ---; 256 (Reservoir with peat silt and rocks)                                      | Shtakelberg       | 1937   |
| <i>pulverulentus</i>         |   |                   |        |
| Edwards                      | ---; ---; 143   | Barraud           | 1934   |
|                              | ---; ---; 235   | Edwards           | 1922 b |
| <i>punctatus</i>             |   |                   |        |
| Meigen                       | ---; ---; 154, 317  | Séguy             | 1924   |
| <i>punctifemore</i>          |   |                   |        |
| (Ludlow)                     | ---; ---; 143   | Edwards           | 1934 a |
|                              | ---; Nov.; 242  | Dyar &<br>Shannon | 1925   |
| <i>punctipes</i>             |   |                   |        |
| Edwards                      | ---; ---; 59  | Barraud           | 1934   |
| <i>punctor</i>               |   |                   |        |
| (Kirby)                      | Swamps, reservoirs; ---; 256, 321   | Monchadskii       | 1936 + |
|                              | ---; Aug.; 256  | Breev             | 1950   |
|                              | ---; ---; 256, 321 (Reservoirs, marshes with<br>vegetation, woods and taiga, bites man) | Shtakelberg       | 1937   |
| <i>punctor</i>               |   |                   |        |
| <i>meigenaus</i>             | ---; July-Aug.; 256   | Pletnjow          | 1928   |
| Dyar                         | ---; ---; 321   | Edwards           | 1921 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                  | DATE   |
|---|---|-------------------------|--------|
| <i>AEDES</i>  |   |                         |        |
| <i>quadripunctis</i><br>(Ludlow)                            | Open natural pools; ---; 242  | Bohart                  | 1945   |
| <i>quartus</i><br>Martini                                   | ---; ---; 256   | Martini                 | 1931   |
|   | ---; most active July; 321  | Rybinsky                | 1933   |
| <i>rami</i><br>Barraud                                      | ---; in jungle; 143   | Barraud                 | 1928 a |
| <i>refiki</i><br>Medschid                                   | ---; ---; 31, 321 (In spring puddles)<br>Pools and reservoirs; ---; 317   | Shtakelberg             | 1937   |
|   | ---; ---; 317   | Monchadskii             | 1936 + |
|   |   | Anonymous               | 1944   |
| <i>reginae</i><br>Edwards                                   | Treeholes; ---; 70  | Barraud                 | 1928 a |
|   | ---; ---; 143   | Barraud                 | 1934   |
| <i>riparius</i><br>Dyar &<br>Knob                           | Pools and reservoirs; ---; 256  | Monchadskii             | 1936 + |
|   | ---; ---; 256, 321 (Reservoirs, marshes)  | Shtakelberg             | 1937   |
|   | ---; ---; 321°  | Reinhard &<br>Gutzevich | 1931 + |
| <i>riparius</i><br><i>ater</i><br>Gutzevich                 | ---; ---; 294   | Stone et al.            | 1959   |
| <i>riversi</i><br>Bohart &<br>Ingram                        | Artificial containers, rock holes, tree holes,<br>cut bamboo, Aug.-Sept.; bites in woods during<br>day, rests among foliage; 257° | Bohart &<br>Ingram      | 1946   |
| <i>rizali</i><br>(Banks)                                    | ---; ---; 242°  | Bohart                  | 1945   |
|   | ---; ---; 242   | Edwards                 | 1929   |
| <i>robertsi</i><br>Laffoon                                  | ---; ---; 242   | Bick                    | 1949   |
| <i>rossicus</i><br>Dolbeskin,<br>Gorickaja<br>& Mitrofanova | ---; ---; 256, 321 (Reservoirs, bites man)  | Shtakelberg             | 1937   |
| <i>rostochiensis</i><br>Martini                             | Cool forest water holes; attacks man day and<br>evening; 256°   | Martini                 | 1928 + |
|   | ---; forests, May, June; 256  | Martini                 | 1925 + |
|   | ---; active June-September; 321   | Rybinsky                | 1933   |
| <i>rufus</i><br>Gimmerthal                                  | ---; ---; 256   | Stone et al.            | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR           | DATE   |
|--------------------------|---|------------------|--------|
| <i>AEDES</i>             |   |                  |        |
| <i>rusticus</i>          |   |                  |        |
| var. <i>subtrichurus</i> | ---; ---; 317   | Stone et al.     | 1959   |
| <i>Martini</i>           |   |                  |        |
| <i>salinellus</i>        | Pools in forest; ---; 256   | Shchel-kanovtzev | 1928 + |
| Edwards                  | ---; ---; 321   | Rybinsky         | 1933   |
| <i>salinus</i>           | ---; along coastal areas, steppes; 256°, 317°   | Martini          | 1931   |
| <i>Ficalbi</i>           | Alkaline water; ---; 256  | Martini          | 1925 + |
|                          | ---; ---; 317   | Anonymous        | 1944   |
| <i>saperoi</i>           | Tree holes, bamboo; ---; 242  | Knight & Marks   | 1952   |
| Knight                   |   |                  |        |
| <i>saricola</i>          | Rock pools, tree holes; Aug.-Sept.; 143   | Barraud          | 1923   |
| Edwards                  | Rock holes in stream beds; ---; 143   | Knight & Marks   | 1952   |
|                          | ---; ---; 146, 190 (Rock pools)   | Barraud          | 1934   |
|                          | Rock pools; ---; 190  | Edwards          | 1923 + |
|                          | Large rock pools exposed to sunlight; ---; 277  | Causey           | 1937   |
|                          | Rock pools; ---; 280  | Edwards & Given  | 1928   |
| <i>scatophagooides</i>   | ---; ---; 59, 70, 143 (Open natural rain pools)   | Barraud          | 1934   |
| (Theobald)               | Swamps, semi-permanent ground pools; ---; 76.   | Bohart           | 1946   |
|                          | ---; ---; 144   |                  |        |
|                          | ---; ---; 139 (Natural rain pools)  | Hsiao            | 1945   |
|                          | ---; ---; 235   | Barraud          | 1929 + |
| <i>schtakelbergi</i>     | ---; ---; 294   | Stone et al.     | 1959   |
| Shingarev                |   |                  |        |
| <i>scutellaris</i>       | Small tree holes and coconut shells, tins and fallen bracts of coconut inflorescences; ---; 11, 59, 147, 149, 242 | Lee              | 1944   |
| (Walker)                 | Tree holes and bamboo stumps; ---; 70   | Wijesundara      | 1942   |
|                          | ---; carrier of dengue; 76, 77  | Faust            | 1926 a |
|                          | ---; ---; 78, 337   | Barraud          | 1934   |
|                          | Cement pits sewage; naturally infected with filaria; 143  | King et al.      | 1929   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR             | DATE     |
|---|--|--------------------|----------|
| <i>AEDES scutellaris</i><br>(Walker)<br>(cont.) | Artificial containers, pools and ditches; ---; 143   | Liston & Akula     | 1913 +   |
|   | <i>Colocasia</i> ; ---; 149  | Brug               | 1931 a + |
|   | Artificial containers, coconut shells, bushes and fallen fronds, tree holes and rot holes on fallen logs, in split bamboo; hovering about humans in shaded areas near habitations; 242 | Knight & Hull      | 1952     |
|   | ---; Aug.; 242   | Dyar & Shannon     | 1925     |
|   | On fallen leaves; ---; 280   | Colless            | 1957 a   |
| <i>scutellaris alorensis</i><br>Stone & Farner  | ---; ---; 146  | Manson-Bahr        | 1959     |
|   | ---; ---; 149  | Stone & Farner     | 1945     |
| <i>scutellaris andrewsi</i><br>Edwards          | ---; ---; 78   | Manson-Bahr        | 1959     |
| <i>scutellaris paullusi</i><br>Stone & Farner   | ---; ---; 149  | Stone & Farner     | 1945     |
|   | ---; ---; 242  | Manson-Bahr        | 1959     |
| <i>scutellaris scutellaris</i>                  | ---; ---; 147, 148, 242  | Manson-Bahr        | 1959     |
|   | ---; ---; 337  | Stone & Farner     | 1945     |
| <i>seculatus</i><br>Menon                       | ---; on a bush; 143  | Menon              | 1950     |
| <i>semicantans</i><br>Martini                   | ---; ---; 256  | Shchelkanovtzev    | 1928 +   |
|   | ---; most active May-June; 321   | Rybinsky           | 1933     |
| <i>seoulensis</i><br>Yamada                     | Tree holes, bamboos; ---; 76, 168  | Bohart             | 1946     |
|   | ---; attacks man during the daytime; 168°  | Barnett & Toshioka | 1951     |
|   | Tree holes; bites during day; 194°   | Hsiao              | 1946     |
| <i>sherkii</i><br>Knight                        | Rock holes in stream beds, occasionally in artificial containers; ---; 242   | Knight & Marks     | 1952     |
| <i>shintienensis</i><br>Tsia & Lein             | ---; ---; 77   | Stone et al.       | 1959     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                           | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS) | AUTHOR         | DATE   |
|-----------------------------------|---|----------------|--------|
| <i>AEDES shortti</i><br>(Barraud) | Rock pools; June; 143   | Barraud        | 1924 a |
|                                   | From Colocasia at lake; ---; 143, 149                                   | Brug           | 1931 a |
|                                   | ---; ---; 149 (Rock pools)  | Barraud        | 1934   |
|                                   | ---; ---; 235   | Knight & Marks | 1952   |
| <i>sigmoïdes</i><br>Barraud       | ---; crab hole; 11  | Barraud        | 1928 a |
| <i>similis</i><br>Theobald        | Clear pools in swamps; ---; 147   | Lee            | 1944   |
| <i>similensis</i><br>Edwards      | Tree holes; Aug.-Sept.; 143   | Barraud        | 1924 a |
|                                   | ---; ---; 277   | Causey         | 1937   |
| <i>simplex</i><br>(Theobald)      | Crab holes; ---; 11, 70   | Barraud        | 1928 a |
|                                   | ---; ---; 149   | Brug & Edwards | 1931   |
|                                   | ---; ---; 224   | Barraud        | 1934   |
| <i>simulatus</i><br>Barraud       | Tree holes; ---; 143  | Barraud        | 1931 a |
| <i>sinensis</i><br>Chow           | Papaya treehole, bamboo stump; ---; 77                                  | Chow           | 1950   |
| <i>singularis</i><br>(Leicester)  | ---; ---; 145, 190  | Edwards        | 1922 c |
| <i>sintoni</i><br>(Barraud)       | ---; ---; 161   | Shtakelberg    | 1937   |
|                                   | ---; ---; 143, 235 (Rock pools in stream beds)                          | Barraud        | 1934   |
|                                   | Rock pools in stream beds; at 7,000 feet altitude<br>and above; 235     | Knight & Marks | 1952   |
|                                   | ---; at 7000 feet elevation, Sept.; 235                                 | Barraud        | 1924 c |
| <i>sollicitans</i><br>Walker      | ---; ---; 76  | Faust          | 1926 a |
| <i>stenoeterus</i><br>(Theobald)  | ---; ---; 70, 143   | Barraud        | 1934   |
| <i>stevensonii</i><br>Barraud     | Bamboo stumps; Aug.-Sept.; 143  | Barraud        | 1923 a |
| <i>sticticus</i><br>(Meigen)      | ---; ---; 143   | Edwards        | 1921 + |
|                                   | Open or shaded water; ---; 158°   | Hsiao & Bohart | 1946   |
|                                   | Reservoirs with vegetation; ---; 256, 321                               | Monchadskii    | 1936 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                       |
|---|--|---|--|
| <i>AEDES sticticus</i><br>(Meigen)<br>(cont.) | ---; Aug.-Sept.; 256<br>---; most active May-July; 321   | Pletnjow<br>Rybinsky                                | 1928<br>1933                               |
| <i>stonei</i><br>Knight &<br>Laffoon          | Axils of banana, <i>Pandanus</i> , taro, and abaca; ---; 242   | Knight &<br>Marks                                   | 1952                                       |
| <i>subalbatus</i><br>(Coquillett)             | ---; ---; 59, 76, 77, 143, 144, 158, 168, 242, 257,<br>277   | Stone et al.  | 1959                                       |
| <i>subalbopictus</i><br>Barraud               | Treehole; ---; 143<br>---; jungle; 143   | Barraud   | 1934<br>1931                               |
| <i>subdiversus</i><br>Martini                 | ---; ---; 162<br>---; ---; 256, 321  | Ivanov<br>Shtakelberg                               | 1944<br>1937                               |
| <i>subniveus</i><br>Edwards                   | ---; ---; 145. Latex cup; ---; 280<br>---; ---; 149, 190   | Edwards<br>Brug &<br>Edwards                        | 1922 b<br>1931                             |
| <i>subsimilis</i><br>Barraud                  | Bamboo stumps; Sept.; 143  | Barraud   | 1927                                       |
| <i>subtrichurus</i><br>Martini                | ---; ---; 317  | Anonymous   | 1944                                       |
| <i>suffusus</i><br>Edwards                    | Tree holes; Aug.; 143  | Barraud   | 1924 a                                     |
| <i>syntheticus</i><br>Barraud                 | ---; ---; 143  | Barraud   | 1934                                       |
| <i>taeniorhynchoides</i><br>(Christophers)    | ---; ---; 70<br>Temporary rainpools; Oct.; 143<br>Ground pools; ---; 143<br>Breeding places hidden; January; 144<br>---; in low region of hilly area, during day<br>attacks man, common in the course of a brook,<br>most troublesome at night in houses; 144* | Carter<br>Senior-White<br>Barraud<br>Borel<br>Borel | 1950 a<br>1928 a<br>1934<br>1926<br>1926 c |
|   | ---; ---; 235  | Barraud   | 1928                                       |
| <i>tarnogorskii</i><br>Martini                | ---; ---; 345  | Martini   | 1930                                       |
| <i>thomsoni</i><br>Theobald                   | ---; ---; 70<br>Bamboo traps; ---; 143<br>Tree holes; ---; 143   | Carter<br>Fletcher<br>Edwards                       | 1950 a<br>1923<br>1917                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR              | DATE   |
|---|---|---------------------|--------|
| <i>AEDES</i><br><i>togoii</i><br>(Theobald) | Brackish pools; experimental infection of <i>Muchlereria bancrofti</i> ; experimental transmission of Japanese "B" encephalitis; 76   | Bohart              | 1946   |
|   | Rocky pools of sea water on the seashore in May; ---; 76  | Feng                | 1935 a |
|   | Fresh water in stone cavities; ---; 76. ---; bites at night; 158°. Pool rain water, brackish rock pool; ---; 256  | Farner et al.       | 1946 + |
|   | Cavities containing rainwater; ---; 76. Rock pools by the seashore, saline waters; in houses, resting in daytime upon walls, cattle byres, notorious nuisance; 139°. ---; complete development of <i>W. bancrofti</i> ; 158. Pools containing rainwater; 256. | Jackson             | 1938 b |
|   | ---; enters houses; 76°. ---; experimentally infected with <i>W. bancrofti</i> ; 158*. Highly saline water near seacoast, fresh water; ---; 257   | Bohart & Ingram     | 1946   |
|   | Brackish water in rocky coastal pools; ---; 77  | Chow                | 1950   |
|   | ---; ---; 139, 158, 256 (Brackish water)  | Hsiao               | 1945   |
|   | Brackish rock pools, artificial containers; enters houses, experimental infection with Japanese "B" encephalitis; 158. ---; ---; 168.   | Hsiao & Bohart      | 1946   |
|   | Open areas, cement tank, granite vases in gardens, water containing hollows in rocks, in partly dried up beds of streams running down hill; ---; 158  | Lamborn             | 1922   |
|   | Concrete pools, bamboo holes; ---; 158°   | Sasa & Sabin        | 1950   |
|   | Ground water in sun, irrigation tanks, borrow pits; ---; 158  | La Casse & Yamaguti | 1950   |
|   | ---; naturally infected with <i>W. bancrofti</i> ; 158*   | Manson-Bahr         | 1959   |
|   | ---; carrier of <i>Filaria bancrofti</i> ; 158  | Edwards             | 1922 a |
|   | ---; indoors, May to Nov., peak Aug.; 158   | Mitamura & Kitaoka  | 1950   |
|   | Brackish rock pools just above high tide, fresh water in artificial containers near the coast; invade houses during day and lighted rooms at night, host of <i>W. bancrofti</i> and experimentally infection with "B" encephalitis; 168°                      | Hsiao               | 1948   |
|   | Artificial containers and ground pools; a possible vector of filariasis and Japanese "B" encephalitis, 168°   | Barnett & Toshioka  | 1951   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR             | DATE     |
|---|--|--------------------|----------|
| <i>Aedes togoi</i><br>(Theobald)<br>(cont.) | Artificial and reservoirs; town and villages, shelter by day in outhouses; 194°. Lagoons, warm water, deep fissures and shaded pool sites, artificial containers; enters houses, in rocky coast, June-Sept.; 256 | Petrishcheva       | 1948 a + |
|   | Brackish water pools among rocks, on seashore, rain-water puddles; domestic; 194*  | Anonymous          | 1946     |
|   | ---; ---; 256 (In rocks with rain water, bites man)  | Shtakelberg        | 1937     |
|   | Pools with alkaline water; ---; 256  | Pavlovskii         | 1947 +   |
| <i>tonkinensis</i><br>Galliard &<br>Ngu     | Rocky excavations; ---; 144  | Knight &<br>Marks  | 1952     |
| <i>tonus</i><br>Edwards                     | ---; ---; 145, 149   | Brug               | 1934 +   |
|   | ---; ---; 147  | Stone et al.       | 1959     |
| <i>treubi</i><br>(de Meijere)               | From <i>Nepenthes gymnamphora</i> ; ---; 146   | Brug               | 1931 a   |
| <i>trimaculatus</i><br>(Theobald)           | ---; ---; 143  | Barraud            | 1934     |
| <i>umbrosus</i><br>Brug                     | ---; ---; 145, 146   | Brug               | 1924     |
|   | ---; ---; 190  | Edwards            | 1928     |
|   | ---; ---; 242  | Bick               | 1949     |
|   | Pot holes, crab holes in uncut mangrove; ---; 280  | Edwards &<br>Given | 1928     |
| <i>uncus</i><br>(Theobald)                  | ---; ---; 190, 242   | Bohart             | 1945     |
| <i>unicinctus</i><br>Edwards                | Tree holes; Aug.-Sept.; 143  | Barraud            | 1923 b   |
| <i>uniformis</i><br>(Theobald)              | Jungle pools; ---; 143   | Barraud            | 1934     |
| <i>unilineatus</i><br>(Theobald)            | Tins, barrels and garden pots, iron troughs, tree holes, bamboo sections; ---; 143°  | Afridi             | 1939     |
| <i>vallistrius</i><br>Barraud               | ---; ---; 59   | Barraud            | 1934     |
|   | ---; in jungles; 143   | Barraud            | 1928 a   |
| <i>variegatus</i><br>(Schrank)              | Coconut and cocoa-shells, tree holes, shells; ---; 11, 146, 147, 149   | Brug               | 1931 a   |
|   | ---; ---; 78   | Edwards            | 1922 a   |
|   | Small pools of high organic content, water in coconut shells; ---; 147, 242  | Stone &<br>Farner  | 1945     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS: ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR         | DATE     |
|--|--|----------------|----------|
| <i>AEDES</i>   | ---  | Edwards        | 1932 +   |
| <i>variegatus</i><br>(Schrank)<br>(cont.)                        | ---; ---; 190  | Edwards        | 1929     |
|  | ---; ---; 242  | Martini        | 1931     |
|  | Steppe river lowlands in the high grass; seldom in forests but very much so in grazing grounds, are a big nuisance and attack in the evening, Apr., May, June; 256°. ---; ---; 350 | Martini        | 1928 +   |
|  | ---; ---; 256  | Irfan & Vogel  | 1927 +   |
|  | ---; ---; 317  | Stone et al.   | 1959     |
| <i>variegatus</i><br><i>alorensis</i><br>Bonne-Wepster<br>& Brug | ---; ---; 146  | Barraud        | 1928     |
| <i>variegatus</i><br><i>andrewsi</i><br>Edwards                  | ---; ---; 78   | Edwards        | 1922 c   |
| <i>varietas</i><br>(Leicester)                                   | ---; ---; 145  | Brug & Edwards | 1931     |
|  | ---; ---; 149, 190   | Barraud        | 1924     |
| <i>versicolor</i><br>Barraud                                     | ---; at altitudes of 7500 feet; 235  | Monchadskii    | 1936 +   |
| <i>vexans</i><br>(Meigen)  | Temporary waters; ---; 2   | Shtakelberg    | 1937     |
|  | Reservoirs, pools, pits, ditches, only in fresh water; ---; 28, 35, 150, 318, 321, 326   | Barraud        | 1928     |
|  | ---; ---; 28, 35°, 118, 150, 162, 168, 256, 318, 321 (In the open ditch, hole, puddle)   | Hsiao          | 1948     |
|  | ---; ---; 59, 70, 143°, 190, 235   | Chow           | 1949 c   |
|  | Pools, swamps; bites man day and night; 76°, 194°  | Chang          | 1939     |
|  | Ground pools; bites day and night; 76°   | Feng           | 1935     |
|  | Rain water; ---; 76  | Wu             | 1936     |
|  | ---; found at 10,000 feet above sea level; 76  | Barraud        | 1934     |
|  | ---; Aug. & May; 76  | Li & Wu        | 1934 a + |
|  | ---; to 10,000 feet; 76  | Edwards        | 1921 a   |
|  | ---; ---; 77   | Edwards        | 1922 c   |
|  | Pools, ponds, ditches; ---; 139  |                |          |
|  | ---; ---; 143, 145   |                |          |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                    | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                  | DATE   |
|--|--|-------------------------|--------|
| <i>AEDES vexans</i><br>(Meigen)<br>(cont.) | ---; country settlements; 144  | Borel                   | 1926   |
|  | ---; ---; 146, 149   | Brug &<br>Edwards       | 1931   |
|  | Artificial containers; ---; 150  | Gutzevich               | 1948 + |
|  | ---; ---; 158. Riverflooded areas; a great pest from May-July, in houses; 256°. Highwater areas; March, a great pest; 317°. ---; ---; 350, 354   | Martini                 | 1930   |
|  | ---; ---; 154  | Chin                    | 1936   |
|  | Temporary ground pools, ditches, foul water and grassy pools; bite during the day; 242°  | Bohart                  | 1945   |
|  | Ditches, temporary pools; experimental infection and transmission of encephalomyelitis; 256  | Pavlovskii              | 1947 + |
|  | Swamps, borrow pits, streams, artificial containers; ---; 256  | Gutzevich               | 1937 + |
|  | Ground pools, artificial containers; ---; 277  | Causey                  | 1937   |
|  | ---; bites man, forest-steppe and forest areas; 303°   | Bregetova               | 1946'  |
|  | Rain pools, in meadows; ---; 317   | Bedia Bali              | 1938   |
|  | Swamps; May-September; 321   | Rybinsky                | 1933   |
|  | ---; ---; 321°   | Reinhard &<br>Gutzevich | 1931 + |
|  | Ditch water; ---; 326  | Kazantzev               | 1932 + |
| <i>vexans bactrianus</i><br>Olsuf'ev       | ---; ---; 162  | Olsuf'ev                | 1941   |
| <i>vexans nipponei</i><br>(Theobald)       | Temporary rain pools; ---; 76  | Bohart                  | 1946   |
|  | Fresh water ground pools, rice paddies, ditches; day and night biters in bamboo groves, suspected transmitter of Japanese "B" encephalitis; 158° | La Casse &<br>Yamaguti  | 1950   |
|  | Temporary rain pools; ---; 158°  | Hsiao &<br>Bohart       | 1946   |
|  | ---; June-Oct.; 158  | Sasa et al.             | 1950 b |
|  | ---; ---; 162, 168, 256  | Stone et al.            | 1959   |
|  | Fresh water ground pools, ponds, rice paddies, ditches; possible vector of Japanese "B" encephalitis; 168°                                       | Barnett &<br>Toshioka   | 1951   |
|  | Temporary rain pools; bite day and night, 168°   | Hsiao                   | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                | DATE   |
|--|--|-----------------------|--------|
|  |  |                       |        |
| <i>Aedes vexans</i>                      | —; —; 194  | Ono                   | 1939 + |
| <i>nipponii</i><br>(Theobald)<br>(cont.) | —; experimentally infected with spring-summer encephalitis; 256  | Levkovich & Gutzevich | 1941 + |
|  | Temporary ground pools filled with rain water, open foxhole; April and May; 257  | Bohart & Ingram       | 1946   |
| <i>vexans nocturnus</i><br>(Theobald)    | Temporary ground pools and depressions, principally in grassy areas; bites man at night; 242°  | Knight & Hull         | 1953   |
|  | —; —; 242, 337   | Bohart & Ingram       | 1946   |
| <i>vexans stenoetrus</i><br>Theobald     | —; —; 31   | Séguy                 | 1924   |
| <i>vigilax</i><br>(Skuse)                | Salt marsh on coast; —; 77, 145  | Edwards               | 1924 + |
|  | —; —; 77, 144, 145, 146. Brackish pools along tidal swamp margins; common after periods of unusually high tides; 242°  | Bohart                | 1945   |
|  | —; —; 149  | Brug & Edwards        | 1931   |
|  | —; —; 190  | Edwards               | 1928   |
|  | Salt and brackish marsh species; —; 242, 277   | Lee                   | 1944   |
|  | Nipa palm swamp; —; 277  | Causey                | 1937   |
|  | —; —; 337  | Brug                  | 1924   |
| <i>vigilax ludlowi</i><br>(Blanchard)    | Small temporary ground pools surrounding rice paddies containing algae, water rushy in appearance, from temporary brackish pools at edge of salt marsh; woods, mangroves; 242  | Knight & Hull         | 1951   |
| <i>virilis</i><br>(Leicester)            | —; —; 149, 190   | Brug & Edwards        | 1931   |
| <i>vittatus</i><br>(Bigot)               | —; —; 2, 25, 70, 143, 144 (Vector of yellow fever)   | Kumm                  | 1931   |
|  | Treeholes and bamboo stumps; —; 70   | Wijesundara           | 1942   |
|  | —; —; 70, 143, 295 (Reservoirs, rocks, artificial reservoirs near human dwelling)  | Shtakelberg           | 1937   |
|  | Tins, barrels and garden pots, depressions in iron covers, cement garden stumps; favor outdoor situations, attacked men and displayed enhanced activity between 8:00 and 11:00 a.m. and between 4:00 and 6:00 p.m.; 143° | Afridi                | 1939   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>AEDES vittatus</i><br>(Bigot)<br>(cont.) | In artificial container; ---; 144<br>---; ---; 190   | Borel<br>Edwards  | 1926 a<br>1928   |
| <i>wimwrighti</i><br>Baisas                 | ---; ---; 242  | Stone et al.  | 1959   |
| <i>w-albus</i><br>(Theobald)                | ---; ---; 70, 149<br>Bamboo stumps; ---; 76, 77<br>---; lower hills; 76<br>---; ---; 139, 190<br>Bamboo traps; ---; 143<br>---; July; 143°<br>---; jungle; 277                 | Stone et al.<br>Chow<br>Chang<br>Wu<br>Fletcher<br>Afridi<br>Causey | 1959<br>1949 c<br>1939<br>1940<br>1923<br>1939<br>1937 |
| <i>watasei</i><br>Yamada                    | ---; attempts to bite man by day; 158°<br>---; outdoors; 158°  | Hsiao<br>Hsiao & Bohart   | 1946<br>1946   |
| <i>yamada</i><br>Sasa, Kono &<br>Takahashi  | ---; ---; 158  | Sasa et al.   | 1950 a   |
| <i>yerburyi</i><br>Edwards                  | ---; ---; 70   | Senior-White  | 1927   |
| <i>yunnanensis</i><br>(Caschen)             | Rock pools and streambed pools; ---; 76  | Bohart  | 1946   |
| <i>yusafi</i><br>Barraud                    | ---; ---; 143, 235   | Barraud   | 1931 a   |
| <i>zammitii</i><br>Theobald                 | ---; ---; 317  | Anonymous   | 1944   |
| <i>zonatipes</i><br>(Walker)                | ---; ---; 242 (Implicated as a vector of dengue)   | Bohart & Ingram   | 1946   |
| <i>AEDIMORPHUS littoralis</i><br>Barraud    | ---; ---; 143  | Barraud   | 1927   |
| <i>nigrcstriatus</i><br>Barraud             | ---; Dec., Nov.; 59, 143   | Barraud   | 1927   |
| <i>ADIOMYIA catasticta</i><br>Knob          | ---; ---; 70<br>---; ---; 242 (Breed in algae of marshy ponds,<br>irrigation reservoirs, along grassy banks of<br>coastal lagoons in full sunlight within dense<br>vegetation) | James<br>Delfinado  | 1914 a<br>1966   |

TABLE I - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>AEDOMYIA</i><br><i>catasticta</i><br>Knob | ---; ---; 11. Weedy ponds; ---; 143<br>Calm seaway, ---; 143, 146, 149<br>Swamps, pools with much vegetation, road ruts;<br>---; 242  | Barraud<br>Brug<br>Bohart   | 1923 b<br>1931 a<br>1945                                       |
| <i>comstipes</i><br>(Skuse)                  | ---; ---; 11<br>---; ---; 59, 70, 143, 242 (Weedy pools, usually<br>with vegetation)<br>Weedy ponds; ---; 143<br>---; Esc.; 143<br>Shallow swamps free of vegetation; ---; 144<br>---; ---; 145<br>---; ---; 146, 149, 190<br>Floating vegetation; Jan., April., Dec.; 277<br>---; enters houses; 277   | Barraud<br>Barraud<br>Senior-White<br>Borel<br>Brug<br>Brug &<br>Edwards<br>Causey<br>Barraud &<br>Christophers | 1927<br>1934<br>1930 a<br>1931 a +<br>1931<br>1937<br>1931     |
| <i>ANOPHELES</i><br><i>acari</i><br>Baisas   | ---; ---; 242   | Stone et al.  | 1959   |
| <i>aconitus</i><br>Dobritz                   | ---; ---; 11, 59, 70, 143, 144, 145, 146, 149, 190,<br>277 (Irrigation channels, swamps, ponds, pools in<br>creeks and riverbeds, storm drains and tanks with<br>grassy margins)<br>Clear water, artificial containers; experimentally<br>infected with malaria; 59<br>Shaded fresh water with vegetation in creek and<br>river bed pools, lakes; naturally infected with<br>malaria; 59, 190. ---; ---; 77. Clean tanks with<br>grassy edges, roadside storm water drains, streams,<br>rivers; ---; 143<br>Thick vegetation, small forest pools; Jan., Sept.-<br>Nov.; 59°<br>Fast flowing streams, irrigation ditches; ---; 76*<br>Ricefields; ---; 76<br>---; houses, Sept.-Dec., Feb., Mar.; 76 | Boyd<br>Gater<br>Christophers<br>Macan<br>Li & Wu<br>Chow<br>Chow &<br>Balfour                                  | 1949<br>1934 +<br>1933 +<br>1948<br>1934 +<br>1949 a +<br>1949 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES aconitus</i><br>Dünitz<br>(cont.) | ---; ---; 133 (Irrigation ditches, swamps, ponds, rice fields, stream and river pools)<br>---; ---; 139   | Haiso                          | 1945   |
|  | Tanks, pools among fallen paddy; infected with sporozoites of malaria, all year; 143*   | Toumanoff                      | 1934   |
|  | Grassy edges of irrigation canals; ---; 143.<br>---; malaria carrier; 144, 146, 277   | Senior-White et al.            | 1943   |
|  | Artificial containers, swamps, ditches, rice fields; ---; 143, 235. ---; in houses, Oct.; 143   | Strickland & Chowdhury         | 1927   |
|  | Canals, wells, field channels; ---; 143   | Abraham & Samuels              | 1944   |
|  | Ponds; ---; 143   | Iyengar                        | 1931 a |
|  | ---; naturally infected with malaria; 143, 144*, 145, 146, 190, 337 (Rice fields, fresh water ponds with grassy edges, steep, damp streambanks, in houses, bites man) | Bonne-Wepster & Swellen-grebel | 1953   |
|  | ---; experimentally infected with <i>Plasmodium falciparum</i> and <i>P. vivax</i> ; 143  | Iyengar                        | 1933   |
|  | ---; ---; 143°  | Ramsay                         | 1930 a |
|  | Small river, weedy lakes near habitations; Dec., nocturnal; 144 (Rare, troublesome)   | Borel                          | 1928   |
|  | Broad swamps with abundant reeds; ---; 144, 146*  | Borel                          | 1930 a |
|  | ---; all year, in houses, naturally infected with malaria; 144*   | Raynal & Gaschen               | 1935   |
|  | ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 145*  | Farner                         | 1943 + |
|  | ---; naturally infected with <i>W. bancrofti</i> ; 145  | Farner et al.                  | 1946 + |
|  | In shade, on shore at the outlet; ---; 145, 146, 149, 337   | Brug                           | 1931   |
|  | ---; ---; 145*  | Manson-Bahr                    | 1959   |
|  | ---; all year; 146  | Toumanoff                      | 1933 b |
|  | Shaded, vegetated edges of swift mountain streams, springs, marshes; wild species; 147°   | Lee & Woodhill                 | 1944 + |
|  | ---; naturally infected with malaria; 147, 149, 235, 337°. ---; stream banks, enters houses, naturally infected with malaria; 146                                     | Covell                         | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                                   | DATE                     |
|---|--|--|--------------------------|
| <i>ANOPHELES aconitus</i><br>Dobitz<br>(cont.)        | Swamps with grassy margins; ---; 149<br>---; May-Sept., carrier of malaria; 149<br>---; ---; 158*  | Toumanoff<br>Doorenbos<br>Geigy & Herbig | 1932<br>1931<br>1955     |
|   | Streams running through paddy fields, swampy grass, large swampy pools, open deep swamps, weedy ponds; Oct.-Apr.; 190                                      | Lamborn                                  | 1922 a                   |
|   | ---; Jan.-Mar., stables, experimentally infected with <i>P. falciparum</i> ; 190   | Kingsbury                                | 1932                     |
|   | ---; in houses; 190*   | Wharton                                  | 1953                     |
|   | ---; naturally and experimentally infected with malaria; 190   | Christophers                             | 1916                     |
|   | ---; experimentally infected with <i>P. vivax</i> ; 190  | Green                                    | 1935                     |
|   | ---; Apr.-Dec.; 190  | Kingsbury                                | 1931                     |
|   | ---; ---; 190*   | Wilcocks                                 | 1944 b                   |
|   | Open and closed ditches, rice fields; ---; 277.<br>---; ---; 366*  | Causey                                   | 1927                     |
|   | Flooded and grass grown fallow land, slowly moving streams; ---; 277   | Barnes                                   | 1923 a                   |
|   | Borrow pits, drain; ---; 277   | Barraud & Christophers                   | 1931                     |
|   | ---; Aug., Oct.-Dec., in houses; 277*  | Barnes                                   | 1923                     |
|   | Rice fields, fresh water fish ponds, canals and occasionally in streams; ---; 337*   | Wilcocks                                 | 1944 d                   |
| <i>aconitus</i><br>var. <i>filipiniae</i><br>Manalang | ---; ---; 242  | Manalang                                 | 1930                     |
| <i>adenensis</i><br>Christophers                      | Wells, streambed pools; ---; 2<br>Artificial containers; ---; 2<br>---; suspected vector of malaria; 313, 332  | Christophers<br>Boyd<br>Russell          | 1924 a +<br>1949<br>1956 |
| <i>aitkenii</i><br>James                              | Stream edges, seepage springs, in sun and shade;<br>in houses; 11, 144<br>Small pools near streams; tropical jungle and forest, enters houses; 11, 59, 143 | Boyd<br>Christophers                     | 1949<br>1916             |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                | DATE     |
|---|---|---------------------------------------|----------|
| <i>ANOPHELES aitkenii</i><br>James<br>(cont.) | Forest pools; ---; 11   | Wilcocks                              | 1944 a   |
|   | Wells, ditches; ---; 59   | Grewal                                | 1937 +   |
|   | ---; ---; 59, 77, 135, 139, 143, 144, 242, 277<br>(Shaded cool, clear pools with sandy or stony bottoms)  | Hsiao                                 | 1945     |
|   | Rock pools in the outlet of a lake; ---; 70, 143,<br>145, 146, 147, 149, 190  | Brug                                  | 1931 a   |
|   | Jungle streams; ---; 70   | D'abrera                              | 1944     |
|   | Shaded cool and clear water pools with sandy and<br>stony bottom; ---; 76   | Feng                                  | 1938     |
|   | Small streams, seepage springs, small pools and<br>bamboo groves; ---; 76   | Chang                                 | 1939     |
|   | Drains, streams, forest, and bamboo gardens; ---; 76  | Robertson                             | 1940     |
|   | Mountains; ---; 76  | Li & Wu                               | 1935 b + |
|   | ---; experimentally infected with malaria; 76, 139  | Li & Wu                               | 1934 b + |
|   | ---; in houses; 76  | Ling, Liu<br>& Yao                    | 1936     |
|   | ---; ---; 122   | de Mello                              | 1934 +   |
|   | Fallow and growing rice fields, irrigation channels,<br>swamps, hill-streams, rain water and seepage pools,<br>wells; at 4,000 feet elevation and higher, in houses;<br>143 | Russell &<br>Jacob                    | 1942     |
|   | Small pools along edges of streams in jungles up to<br>6,000 feet elevation; rarely in houses; 143, 190   | Russell et al.                        | 1943     |
|   | Shady stream and rocky drainage channel; ---; 143   | McCombie<br>Young &<br>Bailly         | 1928     |
|   | Ditches and depressions; ---; 143   | Iyengar                               | 1930 b   |
|   | Indentations on banks of clear forest streams;<br>Jan., Feb.; 143   | Adhikari                              | 1929     |
|   | Stagnant or semi-stagnant pools; Sept., Nov.-Dec.;<br>143   | Shortt                                | 1924     |
|   | ---; Oct.; 143  | Puri                                  | 1930     |
|   | Sunny or shaded rock pools, streams; ---; 144.<br>Clear, sunny water; ---; 190  | Toumanoff                             | 1932     |
|   | ---; ---; 145, 146, 149, 190 (In vegetation at<br>rivers edge, seepage springs, jungle and forests,<br>swamps, marshes, channels, rivers, rockpools)                        | Bonne-Wepster<br>& Swellen-<br>grebel | 1953     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|---|---|---|--|
| <i>ANOPHELES</i><br><i>aitkenii</i><br>James<br>(cont.) | Shaded, vegetated edges of swift mountain streams, springs, marshes; ---; 147°<br>---; ---; 162, 342<br>Rapid streams; jungle; 190<br>---; ---; 218<br>Grassy margins of running streams; ---; 280<br>---; ---; 345   | Lee & Woodhill<br>Peus<br>Lamborn<br>Stone et al.<br>Colless<br>Shingarev                                       | 1944 +<br>1942 +<br>1922 a<br>1959<br>1957 a<br>1926 +           |
| <i>aitkenii</i><br><i>aitkenii</i><br>James             | Well-shaded, fresh, clean water in seepages, and jungle pools; ---; 143. ---; ---; 145  | Colless   | 1948   |
| <i>aitkenii</i><br><i>bengalensis</i><br>Puri           | ---; ---; 70. ---; Feb., Sept.; 143<br>---; ---; 70, 139, 145, 366 (Margins of small streams, seepage springs, pools in forest, in sun and shade)<br>Shaded margins of still or slow-flowing clear, cool, forest streams; ---; 76, 143, 144, 146, 190<br>Pools, small streams, in shade or exposed to sunlight, forest regions from foothills to an altitude of about 1000 meters; ---; 77<br>---; ---; 145<br>---; ---; 149, 277<br>Quiet margins of cool forest streams; experimentally infected with malaria; 242<br>Clear, cool, forest streams, along shaded edges with or without current; ---; 242 | Puri<br>Boyd<br>Russell et al.<br>Chow<br>Bonne-Wepster & Swellen-grebel<br>Smart<br>Bohart<br>Russell & Baisas | 1930<br>1949<br>1943<br>1949 b<br>1953<br>1943 +<br>1945<br>1935 |
| <i>aitkenii</i><br>var. <i>borneensis</i><br>McArthur   | Clear running water in dense jungle shade; ---; 145   | Bonne-Wepster & Swellengrebel   | 1953   |
| <i>aitkenii</i><br><i>stantoni</i><br>Puri              | ---; ---; 190, 337  | Stone et al.  | 1959   |
| <i>aitkenii</i><br><i>treacheri</i><br>Leicester        | ---; ---; 145<br>---; ---; 190  | Boyd<br>Stone et al.  | 1949<br>1959   |

TABLE 1 - MOSQUITOS (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>ANOPHELES albirostris</i><br>Theobald             | ---; ---; 70<br>---; malaria carrier; 143, 144<br>---; ---; 146, 190  | James<br>Faust<br>Christophers & Harvey   | 1914 a<br>1926 a<br>1923   |
| <i>albofimbriatus</i><br>Giles                       | ---; ---; 342   | Stone et al.  | 1959   |
| <i>albotaeniatus</i><br>Theobald                     | Jungle and swamp pools; ---; 145. Shaded jungle pools of peaty water, sago swamp; bite outdoors during early evening; 190°<br>---; ---; 145, 146, 149, 190 (Small pools, shaded pools, decaying leaves, virgin forest, in slow running water)<br>Deep, clear, shady forest pools with decaying vegetation; ---; 147<br>---; March; 149<br>---; naturally infected with <i>Muchereria malayi</i> ; 277<br>---; ---; 337  | Colless<br>Bonne-Wepster & Swallen-grebel<br>Knight et al.<br>Stanton<br>Raghavan<br>Stone et al.                     | 1948<br>1953 +<br>1944 +<br>1915<br>1961<br>1959                             |
| <i>alexandrae</i><br><i>schingarevi</i><br>Shingarev | ---; ---; 326   | Zhelokhovtzev   | 1937 +   |
| <i>algeriensis</i><br>Theobald                       | ---; ---; 35<br>---; ---; 118, 151, 162, 256, 345 (Reservoirs, treeholes, irrigation, ditch, bites man)<br>Sluggish rivers and streams, fresh clear water usually still, in light shade, swamps; rarely enters houses; 150, 151, 159, 162, 302, 303, 321°, 342, 345<br>Standing or slow-flowing water in ponds, pools and ditches with shading vegetation; bites man at dusk; 151°<br>Spring-fed swamps; in caves; 151<br>---; ---; 151° (Large marshes and sluggish streams with vegetation)<br>Marshes; bites man outdoors at sunset; 154°, 159°, 174<br>Stagnant water, slight current; Jan.-July; 154<br>---; in houses by day; 154 | Kalandadze & Kaviladze<br>Shtakelberg<br>Logan et al.<br>Peus<br>Macan<br>Russell et al.<br>Barraud<br>Buxton<br>Boyd | 1947<br>1937<br>1953 +<br>1942 +<br>1950 +<br>1943<br>1921<br>1924 a<br>1949 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                          | AUTHOR                         | DATE   |
|--|--|--------------------------------|--------|
| <i>Anopheles algeriensis</i><br>Theobald<br>(cont.)      | Marsh with vegetation; bites man by day; 159°  | Lumsden & Yofe                 | 1950   |
|  | Reeds; readily bites man after sunset in woods; 162  | Vel'tishchev                   | 1943 + |
|  | Swamps, springs; May-Nov., attacks man at sunrise and sunset; 256°                               | Enikolopov                     | 1937   |
|  | River floods and irrigation ditches; ---; 256*   | Terdschanian                   | 1929 + |
|  | Muddy ponds with dense vegetation; ---; 256  | Lomeiko                        | 1924   |
|  | Swamps with vegetation, canals; ---; 302   | Leeson                         | 1950   |
|  | Slow running water with vegetation; ---; 317°  | Sabit                          | 1927 + |
|  | Brackish water; ---; 317   | Vogel & Martini                | 1927 + |
|  | ---; in shade; 317   | Martini                        | 1928 a |
|  | ---; ---; 318  | Gutzevich                      | 1948 + |
|  | Swamp-fed springs, drainage and irrigation ditches, ricefields; ---; 326                         | Vlitcheva                      | 1943 + |
|  | Saline waters; in houses, stables, bites in the open when almost dark; 342°, 350°. ---; ---; 326 | Martini                        | 1929   |
|  | Edge of swamps covered with vegetation; pools; 342   | Saliternik                     | 1933   |
|  | ---; all year; 342   | Senevet & Andarelli            | 1956   |
| <i>algeriensis turkestanii</i><br>Schingarew             | ---; ---; 162  | Martini                        | 1929   |
| <i>alongensis</i><br>Venhuis                             | Rock holes with clear water; ---; 144  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Clear water with algae; ---; 144   | Boyd                           | 1949   |
| <i>amaurus</i><br>Martini                                | ---; ---; 162, 326   | Stone et al.                   | 1959   |
| <i>annandalei</i><br>Prashad                             | Bamboos and tree holes; ---; 31  | Christophers                   | 1924   |
|  | Treeholes and bamboo stumps; in houses; 70   | Wijesundara                    | 1942   |
|  | Tree holes; 5000 feet elevation and above; 143   | Iyengar                        | 1922   |
|  | Tree holes; ---; 146   | Boyd                           | 1949   |
| <i>annandalei</i><br>var. <i>djajasanensis</i><br>(Brug) | ---; ---; 146  | Stone et al.                   | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>ANOPHELES<br/>annandalei<br/>interruptus</i><br>Puri | Tree holes; ---; 70, 144<br><br>Cut bamboos; ---; 70<br><br>Jungle tree holes; ---; 76<br><br>---; ---; 76, 277<br><br>Tree holes; August; 143<br><br>Cut bamboo stems; ---; 143<br><br>---; enters houses; 144  | Russell<br>et al.<br><br>D'abrera<br><br>Chow<br><br>Stone et al.<br><br>Puri<br><br>Russell &<br>Jacob<br><br>Farinaud   | 1943<br><br>1944<br><br>1949 a +<br><br>1959<br><br>1929<br><br>1942<br><br>1938             |
| <i>annularis</i><br>Van der Wulp                        | Tree holes, mountain valleys, foothills, swamps,<br>pools and rice fields; ---; 59<br><br>Shallow vegetated lake, ditches; ---; 59, 133, 144<br><br>---; ---; 59, 76, 143, 145, 146, 242, 277 (Fresh<br>water fishponds, ricefields, hill streams with<br>vegetation, swamps, borrow pits of much aquatic<br>vegetation, in houses at night, greedy blood<br>sucker, naturally infected and vector of malaria)<br><br>Marshy forest areas; active day and night, Jan.-<br>Mar., Aug.-Dec.; 59<br><br>---; naturally infected with malaria; 59, 76, 190.<br>---; naturally infected with malaria, enter houses,<br>plain or hills up to 7000 feet; 143. Tree holes,<br>cut bamboo; ---; 144. Saline water; naturally<br>infected with malaria; 146 (Still water with<br>floating vegetation, tanks, swamps, rice fields,<br>borrow pits, in houses)<br><br>Rivers, slow-flowing ditches; ---; 70*. ---;<br>experimentally infected with malaria; 144<br><br>---; naturally infected with malaria; 70, 77,<br>144, 147, 149, 277 (Ponds with aquatic<br>vegetation, slow-flowing streams, rivers, ditches,<br>altitude of 7000 feet elevation)<br><br>Swamps, drying rivers or streams, lakes, reservoirs,<br>ponds, open wells, drains, ditches, stagnant river<br>or stream margins, rice fields; enters houses,<br>naturally infected with malaria; 76* | Wilcocks<br><br>Farner et al.<br><br>Bonne-Wepster<br>& Swellen-<br>grebel<br><br>Macan<br><br>Covell<br><br>Simmons<br>& Aitkens<br><br>Russell<br>et al.<br><br>Robertson | 1944<br><br>1946 +<br><br>1953<br><br>1948<br><br>1944<br><br>1942 +<br><br>1943<br><br>1940 |
|   | Pools, ponds; low-lying plains, enters houses, Aug.-<br>Sept.; 76°<br><br>Seepage water from hillsides, rice field and grassy<br>vegetation; ---; 76   | Chang<br><br>Feng   | 1940<br><br>1936   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                    | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                        | DATE   |
|----------------------------|---|-------------------------------|--------|
| <i>ANOPHELES annularis</i> | Hill streams; ---; 76   | Feng                          | 1936   |
| Van der Wulp (cont.)       | ---; naturally infected with malaria; 76  | Hsiao                         | 1945   |
|                            | ---; June-Dec.; 76  | Chow & Balfour                | 1949   |
|                            | Still and running water in lowlands; ---; 77  | Chow                          | 1949 b |
|                            | Natural ponds with weeds and grass in shade, banks; enters houses; 122  | James                         | 1904 + |
|                            | Still water, channels, drains, swamps, paddy fields; in houses, Aug.-Nov.; 143*   | Senior-White et al.           | 1943   |
|                            | Stagnant water with vegetation in wells, canals, margins of lakes, tanks, moats, dead rivers, ponds, drains, river bed pools; powerful flier; 143   | Christophers                  | 1933 + |
|                            | Tanks, ponds, pools, borrow pits with vegetation; Sept.-Dec.; 143   | Panigrahi                     | 1942   |
|                            | Field channels, swamps, ricefields; ---; 143  | Abraham & Samuels             | 1944   |
|                            | ---; experimental transmission of <i>Plasmodium vivax</i> , <i>P. falciparum</i> and <i>P. malariae</i> ; 143   | Basu                          | 1943   |
|                            | ---; all year, in houses; 143   | Russell & Ramachandra Rao     | 1941   |
|                            | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 143  | Manson-Bahr                   | 1959   |
|                            | ---; June, Oct.; 143  | Jaswant Singh                 | 1933   |
|                            | Lake margins, ditches; ---; 145, 147, 149   | Boyd                          | 1949 + |
|                            | Clear fresh water, fish ponds, rice fields, hill streams with much vegetation, swamps, borrow pits, with much aquatic vegetation; enters houses, bites at night; 146*, 149*, 190°, 242°, 277° | Bonne-Wepster & Swellengrebel | 1953 + |
|                            | Shallow, vegetated lake and slow stream margins, artificial containers; ---; 146, 190, 242  | Farner et al.                 | 1946 + |
|                            | Low swampy areas; July and Aug.; 190  | Hodgkin & Johnston            | 1935   |
|                            | ---; Jan.-Apr., Sept.-Dec., experimentally and naturally infected with malaria; 190   | Kingsbury                     | 1928 + |
|                            | ---; ---; 190*  | Geigy & Herbig                | 1955   |
|                            | ---; experimentally infected with <i>P. falciparum</i> ; 190  | Green                         | 1935   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                       | AUTHOR           | DATE   |
|--|---|------------------|--------|
| <i>ANOPHELES annularis</i>                       | ---; ---; 218   | Kumm             | 1929 + |
| Van der Wulp<br>(cont.)                          | ---; ---; 235   | Iyengar          | 1944   |
|  | Aquatic vegetation in ponds, ditches, ricefields and along vegetated edges of lakes; ---; 242 | Russell & Baisas | 1935   |
|  | Pools, swamps, borrow pits; naturally and experimentally infected with malaria; 242           | Bohart           | 1945   |
|  | ---; naturally infected with <i>W. bancrofti</i> ; 242  | Raghavan         | 1961   |
|  | Open and closed ditches, rice fields; enters houses, possible carrier of malaria; 277         | Causey           | 1937   |
|  | ---; ---; 277*  | Wilcocks         | 1944 b |
| <i>annularis adiei</i><br>James & Liston         | ---; Sept. to Dec.; 76  | Yao et al.       | 1943   |
| <i>annulipes</i><br>Walker                       | ---; suspected vector of malaria; 77  | Gaschen          | 1936   |
|  | ---; ---; 242   | Edwards          | 1929 + |
| <i>apoci</i><br>Marsh                            | ---; ---; 31  | Macan            | 1942   |
|  | Stagnant brackish pools; ---; 150   | Russell et al.   | 1943   |
|  | ---; ---; 151   | Stone et al.     | 1959   |
| <i>aquasalis</i><br>Curry                        | ---; ---; 190°  | Waarton          | 1953   |
| <i>arabica</i><br>Christophers & Khazan<br>Chand | Slow-flowing water in underground aqueduct; ---; 25   | Russell et al.   | 1943   |
|  | ---; ---; 151, 235  | Macan            | 1950   |
|  | Slow moving water, seepages; ---; 154*, 302*  | Boyd             | 1949   |
| <i>arabiensis</i><br>Patton                      | ---; ---; 2   | Stone et al.     | 1959   |
| <i>argyropus</i><br>(Swellengrebel)              | ---; ---; 143, 146, 149, 190, 277   | Stone et al.     | 1959   |
| <i>asiaticus</i><br>(Leicester)                  | ---; ---; 70  | Senior-White     | 1925   |
|  | ---; ---; 143   | Christophers     | 1921   |
|  | Bamboo stumps; deep jungles; 190  | Russell et al.   | 1943   |
|  | Fallen bamboo with decaying leaves; ---; 190  | Kingsbury        | 1936   |
|  | Tree holes; ---; 190  | Christophers     | 1924   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|---|---|--|--|
| <i>Anopheles atropotens</i><br>Lindtrop             | ---; ---; 35  | Stone et al.   | 1959   |
| <i>curirostris</i><br>(Watson)                      | Nipa palms and in brackish water; ---; 190<br><br>Large swampy pools; ---; 190  | Russell et al.<br><br>Lamborn  | 1943<br><br>1922 a   |
| <i>assimiae</i><br>Baily-Choumara                   | Brackish water, covered with algae, <i>Typha</i> and aquatic vegetation, artificial containers, warm salty water; ---; 2  | Baily-Choumara   | 1960   |
| <i>baezai</i><br>Gater                              | ---; ---; 144, 146, 149. ; ---; 190 (Among nipa palms, bites man)<br><br>---; ---; 145*<br><br>Brackish water in stagnant pools and swamps under shade along the coast; naturally infected with malaria; 190<br><br>Water of high salinity; ---; 190<br><br>---; enters houses; 190<br><br>Brackish water; ---; 242<br><br>---; ---; 277, 337<br><br>Tidal swamps; ---; 280 | Bonne-Wepster & Swellen-grebel<br><br>McArthur<br><br>Russell et al.<br><br>Kingsbury<br><br>Nair<br><br>Rozeboom<br><br>Stone et al.<br><br>Gater | 1953<br><br>1950<br><br>1943<br><br>1936<br><br>1947 +<br><br>1951<br><br>1959<br><br>1933 + |
| <i>baezi</i><br><i>gateri</i><br>Baisas             | ---; ---; 145. Brackish waters under deep shade, overgrown tidal drains, Nipa palm, swamp fringes; ---; 242   | Colless  | 1948   |
| <i>balabacensis</i><br>Baisas                       | ---; ---; 77, 146, 190, 235. ---; possible vector of malaria; 59, 143, 144. Pools in deep jungle; ---; 145. Seepages from stream, rock pools, pits; in forest, enters houses, all year peak, Sept.-Nov.; 277*<br><br>---; possible vector of malaria; 149. ---; ---; 145*   | Scanlon & Sandhinand<br><br>Bonne-Wepster & Swellen-grebel   | 1965<br><br>1953   |
|   | Forest creeks, clear pools in beds of temporary forest streams and pools away from stream; ---; 242   | Boyd   | 1949   |
| <i>balabacensis</i><br><i>baicasi</i><br>Colless    | ---; ---; 242   | Stone et al.   | 1959   |
| <i>balabacensis</i><br><i>introlatus</i><br>Colless | ---; ---; 190<br><br>---; ---; 277  | Stone et al.<br><br>Scanlon & Sandhinand   | 1959<br><br>1965   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|---|--|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>balerensis</i><br>Mendoza                            | ---; ---; 242  | Stone et al.                   | 1959   |
| <i>bancroftii</i><br>Giles  | Shallow, stagnant or running water with vegetation;<br>---; 70   | Knight et al.                  | 1944 + |
|   | ---; ---; 70, 190. Large bodies of water with vegetation, ditches, canals; naturally infected with malaria; 242  | Bohart                         | 1945   |
|   | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 145   | Manson-Bahr                    | 1959   |
|   | Lakes, river backwaters; bites man at night; 147*  | Farner                         | 1943 + |
|   | ---; ---; 147 (Shaded pools, grassy-banked slow creeks, pot holes in creeks and rivers)  | Covell                         | 1944   |
| <i>bancroftii</i><br>var. <i>barbiventris</i><br>Brug                       | Clear sunny pools; ---; 145  | Russell et al.                 | 1943   |
|   | Shaded pools in woods; ---; 145  | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>bancroftii</i><br>var. <i>pseudo-</i><br><i>barbirostris</i><br>(Ludlow) | ---; along stream banks, Oct.-Dec.; 242  | Russell                        | 1931   |
| <i>barbirostris</i><br>Van der Wulp   | Shady pools and watercourses; common in forests, orchards, rarely enters houses, experimentally infected with malaria; 11, 59, 70, 143   | Christophers                   | 1916   |
|   | Salt water swamp, well; ---; 11. ---; naturally infected with malaria; 149, 190. ---; enters houses; 242 (Shady pools with vegetation, tanks, borrow pits, ricefields, swamps, slow-flowing streams, bite outdoors in shade by day, rarely found in houses)  | Covell                         | 1944   |
|   | Slow streams, tanks covered with weeds; ---; 11  | Wilcocks                       | 1944 a |
|   | Spring, dams, ponds, pools, stagnant water, burrow pits; ---; 11, 59, 133, 144, 149, 190, 242, 277   | Farner et al.                  | 1946 + |
|   | ---; ---; 70, 76, 143, 146. ---; experimentally infected with <i>Wuchereria malayi</i> ; 145. ---; in houses, experimentally infected with <i>Plasmodium vivax</i> ; 190. ---; experimentally infected with <i>P. falciparum</i> ; 242. ---; experimentally infected with <i>P. vivax</i> ; 337 (Clear water, slow running streams, ponds, swamps, ditches, bites man) | Bonne-Wepster & Swellen-grebel | 1953   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                          | DATE   |
|--|--|---------------------------------|--------|
| <i>ANOPHELES barbirostris</i><br>Van der Wulp<br>(cont.) | ---; attack man by day; 11. Stagnant water in lakes, irrigational borrow pits, pits; ---; 143  | Christophers                    | 1933 + |
|  | Marshy forest areas, forest pools, shell crater; Jan.-March, July-Dec., bites man at night; 59°  | Macan                           | 1948   |
|  | Artificial containers; ---; 59   | Feegrade                        | 1929 + |
|  | ---; enter houses, bites man out doors; 59°  | Macan                           | 1950 a |
|  | Rain pools on grass, tank, ricefield and jungle pond; Feb., April, June; 70  | Senior-White                    | 1928   |
|  | ---; naturally infected with <i>W. malayi</i> ; 70   | Carter                          | 1948   |
|  | Swamps, drying rivers or streams, lakes, reservoirs, open walls, drains and ditches, stagnant river or stream margins; enters houses; 76 | Robertson                       | 1940   |
|  | Ponds, pools, rice fields and with vegetation; ---; 76   | Feng                            | 1938   |
|  | Stagnant water with vegetation; ---; 76  | Boyd                            | 1949   |
|  | ---; Sept. to Dec.; 76   | Yao et al.                      | 1943   |
|  | Swamps, rice fields; enters houses at daytime, July-Oct.; 76°  | Chang                           | 1940   |
|  | Shores of river, ponds, puddles; March and Oct., during dry season and end of rainy season; 122  | de Mello &<br>& Bras de Sa      | 1935   |
|  | Ricefields; ---; 133°  | Hsiao                           | 1945 + |
|  | ---; ---; 133, 139   | Feng                            | 1937   |
|  | Swamps, slow flowing shaded streams; ---; 139  | Li & Wu                         | 1934 + |
|  | Water rich with putrifying vegetation; common, Nov. and March, in houses; 143  | Russell &<br>Ramachandra<br>Rao | 1941   |
|  | Stagnant ponds, shaded ditches, shaded pools with vegetation; ---; 143   | Iyengar                         | 1930 a |
|  | Irrigation channels; ---; 143. ---; ---; 143°  | Senior-White                    | 1928 a |
|  | Grass covered tanks, hill streams, wells; ---; 143   | McCombie Young<br>& Abdul Majid | 1929   |
|  | In lake; ---; 143  | Senior-White<br>& Adhikari      | 1939   |
|  | Storm water by roadsides; ---; 143.  | Iyengar                         | 1924   |
|  | ---; all year; 143   | Iyengar                         | 1932   |
|  | ---; ---; 143°   | Senior-White                    | 1934   |
|  | Open water; enters houses; 143, 235  | Strickland<br>& Chowdhury       | 1927   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR            | DATE   |
|--|---|-------------------|--------|
| <i>ANOPHELES barbirostris</i><br>Van der Wulp<br>(cont.) | ---; naturally and experimentally infected with <i>W. bancrofti</i> and <i>W. malayi</i> , natural vector of <i>W. bancrofti</i> , natural and experimental vector of <i>W. malayi</i> ; 143*, 145, 277*. ---; experimentally infected with and experimental vector of <i>W. bancrofti</i> ; 146. ---; naturally infected with and natural vector of <i>W. malayi</i> ; 190<br><br>---; ---; 143*, 145* | Raghavan          | 1961   |
|  | Sunny or shady stagnant pools, swamps, streams with vegetation, artificial containers; enters houses; 144*  | Manson-Bahr       | 1959   |
|  | Grassy streams and pools; November-April; 144   | Borel             | 1930 a |
|  | Small river, reedy lakes; Dec., nocturnal; 144  | Borel             | 1928   |
|  | In stagnant water of furrows; common; 144   | Borel             | 1926 c |
|  | ---; Nov., Dec.; 144  | Gashen & Marneffe | 1936   |
|  | ---; all year, in houses; 144   | Raynal & Gaschen  | 1935   |
|  | ---; ---; 144°  | Toumanoff         | 1935 a |
|  | In shade in clear water of streams and rivers, ponds, rock pools, ditches, canals, borrow pits, rice fields, wells, salt water swamps; bite in shade in day, enter houses occasionally, experimentally infected with <i>Plasmodium vivax</i> ; 145°, 147°   | Simmons           | 1942 + |
|  | "Coconut" on the lake; ---; 145, 146, 147, 149  | Brug              | 1931 a |
|  | Fresh and brackish water; ---; 145, 146, 147  | Farnar            | 1943   |
|  | Shaded, sunny, turbid and stagnant water; ---; 145*. ---; in houses, naturally and experimentally infected with <i>W. malayi</i> , attacks day and night; 149°  | Lee & Woodhill    | 1944 + |
|  | Sago swamps, drains; in buildings, May-Oct.; 145  | Roper             | 1914   |
|  | Pools, buffalo wallows, swamps with tall grass sedge seepages, paddy fields; ---; 145. Ground water containing vegetation, paddy fields, overgrown drains and open, sedy swamps; bite during day and at night; 146°   | Colless           | 1948   |
|  | ---; in houses, experimentally infected with microfilaria, carrier of <i>Wuchereria malayi</i> ; 145°   | Kariadi           | 1938   |
|  | ---; naturally infected with malaria; 145   | Roy & Brown       | 1954   |
|  | ---; possible vector of malaria; 145  | McArthur          | 1950   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR             | DATE   |
|--|--|--------------------|--------|
| <i>ANOPHELES barbirostris</i><br>Van der Wulp<br>(cont.) | ---; ---; 145*. Coastal plains in slow moving stagnant water, often shaded; ---; 190*  | Russell            | 1956   |
|  | ---; ---; 145*   | Wilcocks           | 1944 d |
|  | Clean water swamp and polluted fish pond; ---; 190   | Hacker             | 1923   |
|  | Swamps; in houses, vector of malaria; 190*   | Hodgkin et al.     | 1935   |
|  | Large swampy pools; ---; 190   | Lamborn            | 1930   |
|  | Swamps with overgrown vegetation, mining pools and aquatic plants; ---; 190  | Hodgkin & Johnston | 1935   |
|  | ---; Apr.-Dec., cattle sheds; 190  | Kingsbury          | 1931   |
|  | ---; March-June, experimentally infected with <i>W. bancrofti</i> ; 190  | Hodgkin            | 1938   |
|  | ---; experimentally infected with malaria; 190, 242, 337. Dense cover of weeds, open and closed ditches; ---; 277. ---; naturally infected with malaria; 337 | Causey             | 1937   |
|  | ---; experimentally infected with <i>P. vivax</i> ; 190  | Green              | 1935   |
|  | ---; possible vector of malaria, occasionally bites out of doors, indoors; 190°  | Wharton            | 1953   |
|  | ---; naturally infected with <i>W. malayi</i> ; 190  | Wharton            | 1957   |
|  | ---; stables, all year; 190  | Kingsbury          | 1932   |
|  | ---; enters houses; 190  | Lamborn            | 1922 b |
|  | ---; ---; 235  | Christophers       | 1921   |
|  | Wells, mountain creek, spring full of aquatic vegetation; May and Aug., rare; 242  | Baisas             | 1931   |
|  | Pools in stream beds, streams and rivers, irrigation channels, rice fields; ---; 242   | Mieldazis          | 1930   |
|  | Semi-stagnant pool, densely shaded with vegetation and algae, open rivers and brooks, under overhanging plants along the banks of open streams; ---; 242     | Walker & Barber    | 1914   |
|  | Shaded clear water of streams and rivers; naturally infected with malaria; 242   | Bohart             | 1945   |
|  | ---; wall with cracks and crevices, Oct. to Dec.; 242  | Russell            | 1931   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                | DATE   |
|--|---|---------------------------------------|--------|
| <i>ANOPHELES barbirostris</i><br>Van der Wulp<br>(cont.)   | ---; naturally infected with oocysts; 242   | Dy &<br>Gapuz                         | 1948   |
|  | Borders of rice fields, in moats, ponds, borrow pits, roadside drains and in gardens; inside houses and sheds, Oct.-Nov.; 277   | Barraud &<br>Christophers             | 1931   |
|  | Flooded and grass grown fallow land; June, July, Nov.- Dec.; 277  | Barnes                                | 1922   |
|  | Blind ends of waterways; common; 277  | Wilcocks                              | 1944 b |
|  | ---; ---; 277°  | Barnes                                | 1923   |
|  | ---; ---; 349   | de Mello &<br>Afonso                  | 1921   |
| <i>barbirostris ahomi</i><br>Chowdhury                     | Ditches and stagnant pools with vegetation, swamps; ---; 143  | Russell<br>et al.                     | 1943   |
| <i>barbirostris</i><br><i>barbirostris</i><br>Van der Wulp | ---; ---; 59, 70, 76, 133, 143, 144, 149, 190, 242, 277 (Ponds, pools and rice fields, bites man). ---; intermediate host of <i>Wuchereria malayi</i> ; 145 (Ponds, pools and rice fields with vegetation, feed on human blood) | Hsiao                                 | 1945   |
|  | ---; naturally infected with <i>W. bancrofti</i> ; 143, 146*  | Manson-<br>Bahr                       | 1959   |
|  | ---; ---; 145, 146, 147 (Under shaded streams, rivers, vegetated ponds, pools, burrow pits, rice fields, wells, salt water swamps). ---; naturally infected with malaria; 190   | Russell<br>et al.                     | 1943   |
|  | ---; ---; 190*  | Geigy<br>Herbig                       | 1955   |
| <i>barbirostris innominata</i><br>(Venhuus)                | Stagnant pools, rivers, swamps; ---; 145*   | Stoker &<br>Koes                      | 1949 + |
| <i>barbumbrosus</i><br>Strickland &<br>Choudhury           | Rocky pools in forest or swamps; ---; 77  | Chow                                  | 1949 b |
|  | ---; ---; 144   | Lefeburev                             | 1938   |
|  | Sunny open grassy ravines, clear streams; infected with malaria; 145. ---; ---; 190, 277, 337 (Slowly running water, springs in jungle and rice fields, grass fringed streams)  | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
|  | ---; ---; 146, 149  | Colless                               | 1948   |
|  | Stagnant water in deep drain; ---; 190  | Kingsbury                             | 1931   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                        | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|--------------------------------|--|------------------------|--------|
| <i>ANOPHELES barianensis</i>   | Tree holes, 5,000 to 8,000 feet elevation; 143.<br>---; ---; 303   | Russell et al.         | 1943   |
|                                | ---; enters houses; 143°. ---; ---; 235  | Christophers           | 1916 a |
| <i>berestnevi</i><br>Stingarev | ---; ---; 326  | Stone et al.           | 1959   |
| <i>bifurcatus</i><br>Linnaeus  | ---; mountains, June-August; 3°  | Lindberg               | 1949   |
|                                | Pools, springs, drainage ditches; ---; 35  | Voskressenskii & Brenn | 1928 + |
|                                | Clean cool ditch water with vegetation; ---; 118   | Anonymous              | 1915 a |
|                                | Forests; ---; 118  | Roukhadze              | 1925   |
|                                | Boggy areas; ---; 118  | Roukhadze              | 1926 b |
|                                | ---; enters houses, Mar.-Nov.; 118   | Roukhadze              | 1925 a |
|                                | ---; ---; 143  | Iyengar                | 1928   |
|                                | Cool mountain streams, stagnant water, irrigation channels; ---; 150   | Gutzevich              | 1948 + |
|                                | ---; ---; 151  | Christophers & Shortt  | 1921 b |
|                                | Subterranean rock cisterns, orange groves, wells; enters houses; 154°  | Austen                 | 1919   |
|                                | Cisterns; Jan.-March; 154  | Kligler                | 1924   |
|                                | Wells, cisterns, small bodies of water; March and June, carrier of malaria; 154. Wells, cisterns, small bodies of water; found March and June; 342 | Buxton                 | 1924 a |
|                                | Cool rain water in cisterns, covered wells; rarely enters houses; 159, 174, 342  | Barraud                | 1921   |
|                                | ---; ---; 162  | Khodukin               | 1928 + |
|                                | Riverbeds, open wells, ditches; ---; 174. Artificial containers; Feb.-March; 302   | Legendre               | 1924 + |
|                                | Shaded waters of subsoil origin, drainage ditches with sandy banks overgrown with grass; trees and reeds adjoining drainage ditches; 256           | Enikolopov             | 1931 + |
|                                | Natural reservoirs containing clear, pure water; ---; 256  | Zarkin                 | 1929 + |
|                                | Shaded still waters, small swiftly running mountain streams; ---; 256  | Yatzenko               | 1927   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|--|--|--------------------------------|--------|
| <i>ANOPHELES bifurcatus</i><br>Linnaeus<br>(cont.) | ---; attacks man in daylight; 256°   | Shakhmatov                     | 1926 + |
|  | Cisterns and wells, sunny mud puddles without vegetation; ---; 302   | Legendre                       | 1924 a |
|  | ---; Apr., May, Sept., Oct.; 303   | Latuishhev                     | 1929 + |
|  | Swamps, shady waters surrounded by tall vegetations, springs, wells, fountains; in forests, houses and stables, bites man at night; 317°. Wells and cisterns; ---; 342 | Martini                        | 1929   |
|  | Clear, slow-flowing or stagnant, shaded water; ---; 317  | Sabit                          | 1927 + |
|  | ---; carrier of malaria; 317   | Anonymous                      | 1944   |
|  | Irrigation ditches; ---; 318   | Petrishcheva                   | 1931 + |
|  | Springs; ---; 318  | Orlows & Schachow              | 1930 + |
|  | ---; ---; 318, 326 (Shaded reservoirs, bites man)  | Shtakelberg                    | 1937   |
|  | Streams; all year; 321   | Rybinsky                       | 1933   |
|  | Permanent reservoirs nourished by spring water; ---; 321   | Dolbeshkin                     | 1928 + |
|  | ---; bites man during day; 321*  | Shakhov                        | 1928   |
|  | Deep wells; ---; 342   | Swellen-grebel                 | 1925   |
|  | Reservoirs and artificial containers; ---; 342   | Shapiro                        | 1933   |
|  | ---; ---; 342*   | Stuart                         | 1933   |
|  | ---; ---; 345  | Mess                           | 1940   |
| <i>brevipalpis</i><br>Roper                        | ---; swamps and jungle, Jan., Apr., June and Dec.; 145   | Roper                          | 1914   |
|  | ---; in houses; 145°, 149°, 190° (Drains, pools, jungle swamps with dense vegetation)  | Russell et al.                 | 1943   |
|  | ---; ---; 145, 190, 337 (Swamps, streams, pools and drains in shade)   | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>brevirostris</i><br>Reid                        | Small stream at edge of jungle in foothills or in coastal plains; ---; 190   | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Grassy margins of running streams; ---; 280  | Colless                        | 1957 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                          | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                                | DATE   |
|----------------------------------|--|---------------------------------------|--------|
| <i>ANOPHELES</i>                 |  |                                       |        |
| <i>bulkleyi</i><br>Causey        | Tree hole; ---; 277  | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
| <i>cardioidensis</i><br>Koidzumi | ---; ---; 77   | Faust                                 | 1926 a |
|                                  | ---; ---; 139*   | Russell                               | 1956   |
| <i>chaudoyei</i><br>Theobald     | ---; ---; 143  | Edwards                               | 1912 a |
|                                  | ---; ---; 342  | Shtakelberg                           | 1925 + |
| <i>choduskini</i><br>Martini     | ---; ---; 162, 326   | Martini                               | 1929   |
| <i>christophersi</i><br>Theobald | Sluggish or fast flowing streams with grassy edges;<br>---; 143  | Strickland<br>& Chowdhury             | 1927   |
|                                  | ---; malaria carrier; 143, 144   | Faust                                 | 1926 a |
| <i>cinerreus</i><br>Theobald     | ---; ---; 2  | Bedford                               | 1928   |
|                                  | ---; ---; 25   | Stone et al.                          | 1959   |
|                                  | ---; ---; 143  | Puri                                  | 1928 a |
|                                  | Artificial containers; Dec.; 233   | Gill                                  | 1916   |
|                                  | ---; enter houses; 270° (Margins of rivers, swamps,<br>pools and ditches)  | Russell<br>et al.                     | 1943   |
|                                  | ---; ---; 270  | Leeson                                | 1948   |
| <i>claviger</i><br>(Meigen)      | ---; ---; 3, 150, 151, 162, 342  | Stone et al.                          | 1959   |
|                                  | ---; ---; 28. ---; bites man at night; 162°  | Senevet &<br>Andarelli                | 1956   |
|                                  | Shaded springs devoid of vegetation, mountains;<br>---; 35   | Ivanova &<br>Polovodova               | 1942 + |
|                                  | Wells with salt water; ---; 35   | Achundow                              | 1935 + |
|                                  | ---; ---; 35*. ---; ---; 159*  | Russell                               | 1956   |
|                                  | Springs and swampy meadows; river, May-Aug.; 118   | Nikiforova                            | 1941 + |
|                                  | Natural and artificial reservoirs, streams; ---; 118   | Dzhaporidze                           | 1937 + |
|                                  | Water exposed to light; ---; 118   | Shlenova                              | 1941 + |
|                                  | Rivers, wells, water holes, ground pools, swamps,<br>artificial containers; rarely indoors, on<br>vegetation; 150, 151, 159, 162, 256, 302, 303, 342 | Logan et al.                          | 1953 + |
|                                  | Shaded spring pools, in houses; ---; 150, 151°   | Macan                                 | 1950 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                    | DATE     |
|--|---|---------------------------|----------|
| <i>ANOPHELES claviger</i><br>(Meigen)<br>(cont.) | Shaded permanent ponds, lake margins, artificial containers; ---; 154*  | Boyd                      | 1949     |
|  | Cisterns; indoors; 154, 159°  | Lumsden & Yofe            | 1950     |
|  | ---; May-July, Oct., Nov., possible vector of malaria; 154  | Garret-Jones              | 1962     |
|  | Areas flooded by mountain rivers; foothills; 162  | Balkashina                | 1939 +   |
|  | ---; in houses, naturally infected with malaria; 162  | Vassiliev                 | 1913 +   |
|  | ---; ---; 162, 350 (Marshes, shallow rock pools and wells). ---; ---; 302. Cisterns and domestic wells; enters houses; 342*                                 | Russell et al.            | 1943     |
|  | Streams with dense algae, springs and mountain streams, depressions in sandy river shoals, pools; rarely enters houses; 166                                 | Petrishcheva & Polyakov   | 1940 +   |
|  | Irrigation channels, swamps, spring water; ---; 166   | Raevskill & Vinogradskaya | 1934 +   |
|  | ---; ---; 166°  | Naumov                    | 1940 +   |
|  | Cool, often dark wells, artificial containers, leakage from canals, quiet stream pools; bites man night and day, indoors and outdoors, all year; 174*, 302* | Leeson                    | 1950     |
|  | Open water reservoirs, in dark caves with algae, tunnels; ---; 256  | Velichkevich              | 1935 +   |
|  | ---; basements of inhabited houses and cellars; 256   | Zaikin                    | 1946 +   |
|  | ---; in houses; 256   | Raevskii                  | 1942 +   |
|  | ---; bites man in the open; 256°  | Danilova                  | 1938 +   |
|  | Caves; ---; 302   | Anonymous                 | 1944     |
|  | ---; malaria carrier; 302   | Roy & Brown               | 1954     |
|  | ---; ---; 317°  | Hakki                     | 1934 +   |
|  | Ditches, flooded irrigation areas with vegetation, slow mountain streams, wells, pits and springs; enters houses, Feb., Mar., Nov., Dec.; 318               | Petrishcheva              | 1934 +   |
|  | Wells, sun-exposed streams with dense grass, sulphur springs, in gorges, caves and burrows; Apr.- Nov.; 318   | Petrishcheva              | 1934 a + |
|  | Shaded brooks, swamps and ponds; bites man in woods, occasionally enters houses; 321°   | Val'kh                    | 1938 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|--|--|------------------------|--------|
| <i>Anopheles claviger</i><br>Meigen<br>(cont.)       | River flood water in forests; ---; 321   | Savitzhu               | 1941 + |
|  | Rivers, swamp-fed springs, rice fields, drainage and irrigation ditches; ---; 326  | Ulitzcheva             | 1943 + |
|  | Wells and cisterns; common in towns and villages; 342  | Anonymous              | 1944 c |
|  | Coastal swamp; ---; 342  | Kirkpatrick            | 1925 + |
|  | Marshes; ---; 342  | Anonymous              | 1941 + |
|  | Pools, pits; bites man; 345°   | Markovich              | 1941 + |
| <i>costalis</i><br>Theobald                          | ---; ---; 2  | Christophers           | 1920   |
|  | ---; ---; 76   | Riley &<br>Wu Liang-Yu | 1932   |
| <i>coustoni</i><br>Laveran                           | Brackish wells; ---; 2   | Leeson                 | 1948   |
|  | ---; ---; 154  | Stone et al.           | 1959   |
|  | ---; ---; 302  | Smart                  | 1943 + |
|  | Marsh breeder; ---; 342  | Anonymous              | 1941 + |
|  | ---; coastal swamps; 342   | Kirkpatrick            | 1925 + |
| <i>coustoni</i><br>var. <i>tenebrosus</i><br>Döhnitz | Shallow swamps with vegetation; ---; 25  | Boyd                   | 1949   |
|  | ---; bites man by day in shade, preferably between 6:00 and 7:00 p.m.; 25°   | De Meillon             | 1947 + |
|  | ---; ---; 154, 233, 270  | Stone et al.           | 1959   |
|  | ---; ---; 242  | Senevet &<br>Andarelli | 1956   |
| <i>crawfordi</i><br>Reid                             | ---; ---; 149, 190   | Stone et al.           | 1959   |
| <i>cristatus</i><br>King &<br>Baisas                 | Rock holes formation in stream beds with shade of overhanging vegetation; ---; 242   | King &<br>Baisas       | 1936   |
| <i>culicifacies</i><br>Giles                         | Wells, pools in beds of rivers; ---; 2   | Christophers & Chand   | 1915   |
|  | Fresh or salt water, wells and garden channels; ---; 2   | Buxton                 | 1944 + |
|  | ---; 3*, 70*, 150*, 235*   | Russell                | 1956   |
|  | Brackish water, fresh water in ditches, seepages, slow moving streams, pools, canals, river beds, fresh rain water, borrow pits, fallowed rice fields, shallow tanks and wells; in houses by day; 25°, 190°. Artificial containers; ---; 277 | Farner et al.          | 1946 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES culcifacies</i><br>Giles<br>(cont.) | Clean water, particularly pools in dried-up river beds; ---; 25, 31   | Macan                          | 1942   |
|  | Irrigation channels of artesian wells, tanks; ---; 37   | Afridi-Majid                   | 1938 a |
|  | Sluggish river, areas overgrown with pond weed; active by night, Feb.-March, Aug.-Sept.; 59   | Macan                          | 1948   |
|  | Canals, rocky stream pools, borrows, road puddles; mountain valleys, foothills; 59  | Wilcocks                       | 1944   |
|  | Irrigation channels; common, in houses, important carrier of malaria; 59, 143   | Christophers                   | 1916   |
|  | Artificial containers; ---; 59  | Grewal                         | 1937 + |
|  | Shallow wells; ---; 59, 76  | Boyd                           | 1949 + |
|  | ---; March-May; 59  | Lalor                          | 1913 + |
|  | ---; ---; 59*, 144, 277 (Slow running streams, irrigation channels and seepages, pools in river beds, rain water pools, borrow pits)  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Clear, fresh water with aquatic vegetation, exposed to the sun; enter houses, active all night; 70°   | Carter                         | 1945   |
|  | Shaded springs among rocks and wells; ---; 70   | Senior-White                   | 1920 a |
|  | Pools in river, sluggish streams; ---; 70. ---; suspected vector of malaria; 76, 144 (Fresh water and occasionally in brackish water, irrigation channels, sluggish streams, rice fields, borrow pits, shallow wells, pools, bites man freely, enters houses) | Covell                         | 1944   |
|  | ---; ---; 70*, 143*. Rice fields; naturally infected with malaria, May-Jan.; 76°  | Chow & Balfour                 | 1949   |
|  | ---; carrier of malaria, in houses, Nov.; 70  | Russell                        | 1931   |
|  | Brackish water, streams, irrigation canals, pools; enter houses, bites at night; 76*  | Hsiao                          | 1945   |
|  | Artificial containers, clear water in ditches, pools, streams; ---; 76  | Chang                          | 1940   |
|  | ---; carrier of malaria; 76°  | Feng                           | 1938   |
|  | ---; July-Sept.; 76   | Yao et al.                     | 1943   |
|  | ---; ---; 122   | Christophers                   | 1933 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                       | DATE   |
|---|--|------------------------------|--------|
| <i>ANOPHELES culicifacies</i><br>Giles<br>(cont.) | Irrigation canals and channels, seepage borrow pits, wet fallow rice fields and ditches, rain water pools; all year, in houses, dwellings; 143       | Russell & Ramachandra Rao    | 1941   |
|   | Swamps, ponds, tanks in valleys; possible vector of malaria; 143   | Rao & Nassiruddin            | 1945   |
|   | Streams, artificial containers, irrigation ditches; Jan.; 143°   | Strickland & Chowdhury       | 1927   |
|   | In muddy stagnant water, surface water, drains and rock pools; carrier of malaria; 143   | McCombie Young & Bailly      | 1928   |
|   | Clean fresh water in irrigation channels, canal and sandy river bed pools, tanks, rain water, wells; ---; 143  | Christophers                 | 1933 + |
|   | Hill streams; ---; 143   | McCombie Young & Abdul Majid | 1929   |
|   | ---; experimentally infected with malaria; 143   | Iyengar                      | 1931 a |
|   | ---; experimentally infected with <i>Plasmodium vivax</i> and <i>P. falciparum</i> ; 143   | Siddons                      | 1944   |
|   | ---; naturally infected with and natural vector of <i>Wuchereria malayi</i> ; 143  | Raghavan                     | 1961   |
|   | ---; naturally infected with sporozoites, July-Dec.; 143   | Subramanian & Dixit          | 1948   |
|   | Shallow wells, rocky and sandy river bed pools, artificial containers; ---; 144, 277°  | Boyd                         | 1949   |
|   | Clear sunny water; ---; 144  | Monier                       | 1933   |
|   | ---; all year, in houses; 144  | Raynal & Gaschen             | 1935   |
|   | ---; Aug., Sept., possible vector of malaria; 144  | Gaschen                      | 1935   |
|   | ---; naturally infected with malaria; 144*   | Gaschen                      | 1935 a |
|   | ---; ---; 150, 162, 218, 313   | Stone et al.                 | 1959   |
|   | ---; ---; 190. ---; carrier of malaria; 235, 342   | Rey & Brown                  | 1954   |
|   | Borrow pits, surface water collections, shallow wells; Oct.-Mar.; 233  | Gill                         | 1916   |
|   | Fresh water wells; March-Apr.; 233, 313  | Leeson                       | 1948   |
|   | Irrigation channels with vegetation, ditches with clear water; naturally infected with malaria, common, July-Oct.; 235                               | Sinton                       | 1917   |
|   | ---; enters houses; 235, 270° (Fresh clean water, irrigation channels, pools, burrow pits, wells, river beds, fallow rice fields and brackish water) | Russell et al.               | 1943   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>ANOPHELES culicifacies</i><br>Giles<br>(cont.)       | Clear mountain stream; ---; 277*<br>---; in house, Aug.; 277   | Wilcocks<br>Barnes  | 1944 b<br>1923   |
|   | Edge of canals, small streams; ---; 349  | de Mello  | 1938 +   |
| <i>culicifacies adenensis</i><br>Christophers           | Wells, pools in stream beds; ---; 2. ---; ---; 3,<br>59, 70, 143, 233, 235<br>---; enters houses; 270° (Pools, irrigation ditches,<br>sluggish streams, rice fields, burrow pits, wells,<br>river beds, mostly in clear water)<br>---; ---; 282, 313, 332  | Christophers<br>Russell et al.<br>Stone et al.  | 1924 a<br>1943<br>1959   |
| <i>culicifacies</i><br>var. <i>sergenti</i><br>Theobald | Pools; in tents, Aug.; 154   | Barraud   | 1921   |
| <i>culiciformis</i><br>Cogill                           | Tree holes, jungle pools; ---; 122   | Christophers  | 1933 +   |
|   | Tree holes, jungle pools; forests; 143   | Russell et al.  | 1943   |
| <i>demeilloni</i><br>Evans                              | ---; ---; 2, 332   | Stone et al.  | 1959   |
| <i>d'thali</i><br>Patton                                | ---; ---; 2°, 25°, 151°, 154 (River bed pools, wells,<br>enters houses)<br>Brackish water covered with algae; ---; 2<br>---; ---; 2, 151, 233, 235, 342 (Pools, streams,<br>springs and wells, enters houses, bites man)<br>---; --; 25, 31, 150 (Breeds in a wide variety of<br>places)<br>Pools and hill streams; ---; 143<br>---; ---; 143 (Ponds, brooks with algae and grasses,<br>nocturnal, bites man, suspected vector of malaria)<br>Weedy backwaters, isolated stagnant pools, rice<br>fields; ---; 150, 151<br>---; ---; 151, 154 (Reservoirs, bites man)<br>Shaded stream margins, small pond with floating<br>vegetation; ---; 159<br>---; ---; 159, 174, 235, 270, 282, 302, 332<br>Pools, volcanic rock holes, underground aqueduct,<br>wells; ---; 233 | Boyd<br>Bailey &<br>Choumara<br>Russell et al.<br>Macan<br>Roy & Brown<br>Peus<br>Macan<br>Shtakelberg<br>Lumsden &<br>Yofe<br>Stone et al.<br>Christophers | 1949<br>1960<br>1943<br>1942<br>1954<br>1942<br>1950 +<br>1937<br>1950 +<br>1959<br>1933 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE                                       |
|-------------------------------------|---|--|--|
| <i>ANOPHELES edwardsi</i><br>Yamada | Cool water; ---; 158°. ---; ---; 168<br>---; ---; 158   | Hsiao &<br>Bohart                                    | 1946                                       |
|                                     | Cool water; ---; 168°   | King   | 1931                                       |
|                                     | ---; ---; 242   | Hsiao  | 1948                                       |
| <i>ejercitoi</i><br>Mendoza         | ---; ---; 70, 143   | Stone et al.   | 1959                                       |
| <i>elegans</i><br>(James)           | ---; ---; 162   | Stone et al.   | 1959                                       |
| <i>elutus</i><br>Edwards            | ---; ---; 35,318*<br>---; enters houses, March-Nov.; 118*<br>---; ---; 150*<br>---; ---; 151, 256, 350. ---; indoors; 317<br>(Malaria vector)<br>Stagnant waters; enters houses, March-July,<br>Oct.,-Nov.; 154*  | Kumm<br>Roukhadze<br>Gutzevich<br>Martini<br>Kligler | 1929 +<br>1925 a<br>1948 +<br>1929<br>1928 |
|                                     | Stagnant bodies of clear water with vegetation;<br>Jan.-March; 154°   | Kligler  | 1924                                       |
|                                     | Along shore of lake; naturally infected with<br>malaria, May-Dec.; 154  | Kligler &<br>Mer                                     | 1931                                       |
|                                     | Reservoirs, winter wadis, seepage wadis, borrow<br>pits, swamps, cisterns; ---; 154   | Anonymous  | 1944 c                                     |
|                                     | ---; ---; 162, 302  | Stone et al.   | 1959                                       |
|                                     | ---; carrier of malaria; 194  | Roy & Brown  | 1954                                       |
|                                     | Rice fields; ---; 303   | Martini  | 1928                                       |
|                                     | ---; July-Aug., in plains; 317  | Arar &<br>Atamanoglu                                 | 1938                                       |
|                                     | Rice fields; ---; 317   | Martini  | 1928 a                                     |
|                                     | Stagnant pools, shores of river, swampy areas;<br>March-Nov., enters houses, carrier of malaria; 342*   | Kligler  | 1930                                       |
|                                     | Stagnant, brackish swamps, sand dunes obstructing<br>streams, pools and low-lying areas, borrow pits,<br>seepages, wells, cisterns, reservoirs, shores with<br>vegetation and gravel; April, May, Aug., Nov.; 342 | Shapiro  | 1933                                       |
|                                     | ---; ---; 342°  | Buxton   | 1924 a                                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>errabundus</i><br>(Swellengrebel) | ---; ---; 145   | Stone et al.                   | 1959   |
| <i>farauti</i><br>Laveran                                | ---; ---; 145*  | Russell                        | 1956   |
|  | Clear, turbid, stagnant, or rain water, lagoons, taro gardens under water, wells, animal wallows, road ruts, bomb craters, trenches, borrow pits; ---; 147                                | Farner et al.                  | 1946 + |
|  | ---; ---; 147 (Natural and artificial water collections, in houses, bites man, possible vector of malaria, infected with <i>Wuchereria bancrofti</i> )                                    | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>febrifer</i><br>Banks                                 | Shaded brooks, depressions of banks, wooded streams, irrigation ditches with vegetation; efficient carrier of malaria; 242°   | Walker & Barber                | 1914   |
|  | ---; experimentally infected with oocysts; 242*   | Dy & Gapuz                     | 1948   |
| <i>filipinae</i><br>Manalang                             | In either sunny or shaded, clear or muddy water in rivers, flowing irrigation ditches, pools and lakes; possible vector of malaria; 242   | Cook                           | 1954   |
|  | Breeds among aquatic plants in spring water either slowly flowing or impounded; ---; 242  | Russell & Baisas               | 1935   |
|  | ---; naturally infected with malaria; 242   | Bohart                         | 1945   |
| <i>flavirostris</i><br>(Ludlow)                          | Irrigation ditches, temporary streams; July-August; 242*°   | Baisas                         | 1939   |
|  | ---; Nov.; 242  | Ludlow                         | 1914   |
| <i>flerowi</i><br>Portschinsky                           | ---; ---; 326   | Stone et al.                   | 1959   |
| <i>fluviatilis</i><br>James                              | Shaded, fresh running water in drainage, irrigation canals; ---; 2. Brackish wells; ---; 270  | Leeson                         | 1948   |
|  | ---; ---; 3, 77, 218, 233, 235  | Stone et al.                   | 1959   |
|  | Pools in stream beds, in slow flowing weedy rivers, swampy margins of lakes and ponds; ---; 31*   | Macan                          | 1942   |
|  | ---; ---; 31, 59, 70, 139, 144, 151, 162, 277. ---; near houses under stream banks; 143 (Foothill streams, springs, irrigation channels, edges of swamps, lakes and tanks, enters houses) | Covell                         | 1944   |
|  | Side pools of fast running irrigation channels, leaking Afridi & Majid 1938 a hydrants; ---; 37   |                                |        |
|  | Running streams and water pools in stream bed with sandy bottom; ---; 76°, 139°   | Feng                           | 1938   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE     |
|--|--|--------------------------------|----------|
| <i>ANOPHELES<br/>fluvialis</i><br>James<br>(cont.) | Slow running water in irrigation channels and ditches, ground pools, rice fields; ---; 76  | Chow                           | 1949 a + |
|  | Excavations; ---; 76   | de Mello                       | 1938 +   |
|  | ---; in houses, Nov.-March; 76   | Chow & Balfour                 | 1949     |
|  | Clear water with vegetations in pits, wells, open-air reservoirs, puddles; enters houses by day; 122   | de Mello & Bras De Sa          | 1935     |
|  | ---; ---; 133  | Feng                           | 1937     |
|  | Springs, irrigation channels, rice fields, swamps, lakes, artificial containers; bites at night; 139°*, 144°*  | Boyd                           | 1949 +   |
|  | Slow flowing streams and pools with sandy bottoms; ---; 139  | Hsiao                          | 1945     |
|  | Streams, channels, trenches, wells, seepage pools, rice fields, river bed pools; enters houses at night, Jan.-May, Aug.-Dec., naturally infected with oocysts and sporozoites; 143°* | Viswanathan                    | 1950     |
|  | Irrigation channels; vicinity of houses, Mar.-June; 143°   | Adisubramaniam & Vedamani-kkam | 1943     |
|  | Artificial containers, canals, field channels, borrow pits, swamps, pools, puddles; all year, naturally infected with malaria; 143   | Abraham & Samuels              | 1944     |
|  | Foothills; ---; 143. ---; suspected vector of malaria; 150   | Russell                        | 1956     |
|  | ---; July-Dec.; 143  | Subramanian & Dixit            | 1948     |
|  | ---; ---; 144°, 162° (Foothill streams, pools, springs and irrigation channels)  | Russell et al.                 | 1943     |
|  | ---; ---; 150, 151 (Streams with vegetation, in houses, Nov.-Mar.)   | Macan                          | 1950 +   |
|  | ---; ---; 218  | Stone et al.                   | 1959     |
|  | ---; malaria carrier; 235  | Roy & Brown                    | 1954     |
|  | Clear mountain streams; ---; 277*  | Wilcocks                       | 1944 b   |
| <i>formosae</i><br>Hatori                          | ---; ---; 77   | Stone et al.                   | 1959     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE         |
|-------------------------------------|--|------------------------|--------------|
| <i>ANOPHELES</i>                    |  |                        |              |
| <i>formosaensis I</i><br>(Tsuzuki)  | ---; ---; 77   | Stone et al.           | 1959         |
| <i>formosaensis II</i><br>(Tsuzuki) | ---; ---; 77   | Yamada                 | 1925         |
| <i>fuliginosus</i><br>Giles         | ---; June-May; 59. ---; in houses, March-Apr.; 143<br>Swampy water, pools with vegetation; common in houses, experimentally and naturally infected with malaria; 59, 143<br>---; ---; 70 | Mayne<br>Christophers  | 1928<br>1916 |
|                                     | Rice fields, ponds, streams and river bed pools;<br>---; 76*   | Li & Wu                | 1934 +       |
|                                     | ---; enters houses, bites man at night; 76°  | Yamada                 | 1925 +       |
|                                     | ---; carrier of malaria; 77, 143, 144  | Faust                  | 1926 a       |
|                                     | ---; common; 77  | Koidzumi               | 1930         |
|                                     | ---; ---; 90   | de Mello & Afonso      | 1921         |
|                                     | ---; ---; 139  | Toumanoff              | 1934         |
|                                     | Canal, deep permanent weedy pools; carrier of malaria, common, all year; 143   | Hodgson                | 1914         |
|                                     | Artificial containers, swamps, borrow pits, pools, streams; ---; 143, 235. ---; in huts; 143. ---; Oct., Dec.; 235   | Strickland & Chowdhury | 1927         |
|                                     | Stagnant ponds and ditches; ---; 143   | Iyengar                | 1930 a       |
|                                     | Rice fields; ---; 143  | Fletcher               | 1924         |
|                                     | ---; ---; 143*, 146*   | Manson-Bahr            | 1959         |
|                                     | ---; open area outside the jungle; 143*  | Iyengar                | 1930 b       |
|                                     | Broad swamps with vegetation, rock pools--shaded or sunny; all year, near houses; 144  | Borel                  | 1930 a       |
|                                     | Small river, reedy lakes near houses; nocturnal; 144   | Borel                  | 1928         |
|                                     | Stagnant putrid mud puddles without vegetation; ---; 144   | Toumanoff              | 1932         |
|                                     | Rock pools, tree holes; ---; 144   | Borel                  | 1926         |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                             | AUTHOR                 | DATE   |
|---|---|------------------------|--------|
| <i>ANOPHELES fuliginosus</i><br>Giles<br>(cont.)          | In stagnant water of furrows; ---; 144  | Borel                  | 1926 c |
|   | ---; in houses; 144   | Toumanoff              | 1935 a |
|   | In a Sawah on the river; ---; 145, 146, 149   | Brug                   | 1931 a |
|   | ---; enters houses; 190   | Lamborn                | 1922 b |
|   | Large swampy pools, ponds; Aug., Oct.-Apr.; 190   | Lamborn                | 1922 a |
|   | Grass grown tanks; rare, June-July, Sept.-Oct.; 235   | Sinton                 | 1917   |
|   | Rainwater ponds, flowing streams and river sloughs; ---; 242                                      | Mieldazis              | 1930   |
|   | Rice fields, dam; ---; 242  | Baisas                 | 1931   |
|   | ---; daytime resting along stream bank, Oct.-Dec.; 242  | Russell                | 1931   |
|   | In moats and grassy pools, especially in flooded land lying fallow; March, enters houses; 277°    | Barnes                 | 1923   |
| <i>fuliginosus</i><br>var. <i>adiei</i><br>James & Liston | Gardens, weedy canals and ponds; enters houses in the evening, Oct.-Nov.; 277                     | Barraud & Christophers | 1931   |
|   | ---; cold season; 143, 235  | Christophers           | 1916   |
| <i>funestus</i><br>Giles                                  | ---; ---; 70  | Carter                 | 1925   |
|   | Dead rivers and ponds; ---; 143. Borrow pits; ---; 235  | Strickland & Chowdhury | 1927   |
|   | Shaded streams and rivers; ---; 143   | Ramsay                 | 1930   |
|   | Tanks; ---; 143   | Roy                    | 1931   |
|   | ---; naturally infected with malaria, Apr.-Nov.; 143. ---; all year, rarely found in houses; 242* | Manalang               | 1931 a |
|   | ---; ---; 190   | Buxton                 | 1923   |
|   | Permanent or temporary streams; ---; 242  | Manalang               | 1931 c |
|   | ---; naturally infected with malaria; 242   | Manalang               | 1931   |
|   | ---; bites man at night; 242°   | Manalang               | 1931 b |
|   | ---; April, Aug.-Oct., enters houses; 277°  | Barnes                 | 1923   |
| <i>funestus</i><br>var. <i>arabicus</i><br>Christophers   | Underground aqueducts; ---; 143   | Ramsay                 | 1930   |
|   | Underground aqueducts; Nov.-Apr.; 233   | Gill                   | 1916   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                           | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR            | DATE   |
|-----------------------------------|---|-------------------|--------|
| <i>ANOPHELES funestus listoni</i> | Streams; enters houses, natural vector of malaria; 59, 70, 143, 235   | Christophers      | 1916   |
|                                   | Ravine stream, tank, jungle pond; Feb., April-June; 70  | Senior-White      | 1928   |
|                                   | Rivers, ravines, wells, rice fields; Feb.-March, August-Sept.; 70   | Senior-White      | 1920 a |
|                                   | ---; ---; 90, 94, 122, 349  | de Mello & Afonso | 1921   |
|                                   | Slightly flowing water; common, June-Oct.; 235  | Sinton            | 1917   |
| <i>gambiae</i><br>Giles           | Partially exposed pool in sunlight, puddles, ponds, drains, irrigation furrows, seepages, ditches, lake and swamp edges, footprints; enters houses; 2°            | Evans             | 1938 + |
|                                   | Small natural water collections in sun, artificial containers, tree holes; enters houses; 25°   | Boyd              | 1949 + |
|                                   | Small pools under sun light; enters houses; 143*, 270*  | Russell et al.    | 1943   |
|                                   | ---; indoors by day; 190°   | Wharton & Reid    | 1950   |
|                                   | Swamps, tree holes; carrier of malaria, in houses, June-Sept., Dec.-Jan.; 242*  | Russell           | 1934   |
|                                   | Pools, hoof marks, artificial containers, gutters fully exposed to the sun; ---; 270  | Macan             | 1942   |
|                                   | ---; naturally infected with malaria; 313, 332  | Russell           | 1956   |
|                                   | Standing or slow flowing water, with or without vegetation, preferably in sun, artificial containers; enters houses and bites man by day and in the evening; 317° | Peus              | 1942   |
| <i>gateri</i><br>Baisas           | Shaded and unshaded pools of brackish water with or aquatic vegetation; ---; 242  | Russell et al.    | 1943   |
| <i>gigas</i><br>Giles             | ---; at high altitudes; 59, 70, 77, 143, 146  | Christophers      | 1924   |
|                                   | Pools; ---; 70, 143   | Christophers      | 1916   |
|                                   | Shady, swampy areas, grassy ditches; ---; 76  | Kan               | 1941 + |
|                                   | Fresh water with dense vegetation, river bed pools; ---; 76   | Li & Wu           | 1934 + |
|                                   | Shady swampy ground, grassy ditch, spring water under shade; ---; 76  | Kan               | 1941   |
|                                   | ---; probable vector of malaria; 76   | Faust             | 1929 + |

TABLE I - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|---|--|--------------------------------|--------|
| <i>ANOPHELES gigas</i><br>Giles<br>(cont.)                    | Small rocky pool; Sept.-Dec., enters houses; 143   | Shortt                         | 1924   |
|   | Fresh water springs, ponds with vegetation at edges, seepage ponds, marshy places among grass, small pools of shallow hill streams; ---; 143. ---; ---; 144, 149. Marsh in virginal forest; ---; 145 | Bonne-Wepster & Swellen-grebel | 1953   |
|   | Borrow pits, swamps, hill streams, rainwater and spring pools, wells; ---; 143   | Russell & Jacob                | 1942   |
|   | Rain pools; ---; 143   | Iyengar                        | 1930 + |
|   | ---; in houses at dusk; 143  | Senior-White                   | 1922   |
|   | ---; Jan.-Feb.; 143  | Watson                         | 1924   |
|   | ---; ---; 190  | Christophers                   | 1921   |
|   | ---; ---; 242  | Dyar & Shannon                 | 1925   |
| <i>gigas</i><br>var. <i>baileyi</i><br>Edwards                | ---; ---; 31   | King                           | 1931   |
|   | ---; ---; 59, 143 (Cool water pools in mountainous regions above 2,500 feet)   | Hsiao                          | 1945   |
|   | Cool water pools in mountainous regions of a high altitude above 2,500 feet; ---; 76   | Feng                           | 1938   |
|   | Shaded clear pools or ponds, open grassy streams; ---; 76  | Chang                          | 1940   |
|   | ---; enters houses; 76, 143  | Boyd                           | 1949 + |
|   | ---; found at 10,000 feet above sea level; 76  | Feng                           | 1935   |
|   | In cool water pools in mountainous regions of high altitude up to 2,300 meters; ---; 77  | Chow                           | 1949 b |
|   | Shady flowing water with vegetation; December; 144   | Toumanoff                      | 1932 a |
|   | ---; at high altitudes; 144  | Lefebvre                       | 1938   |
|   | ---; ---; 144 (Small deep pools)   | Bonne-Wepster & Swellen-grebel | 1953   |
|   | ---; ---; 366  | Russell et al.                 | 1943   |
| <i>gigas</i><br>var. <i>crockeri</i><br>Colless               | ---; ---; 145  | Stone et al.                   | 1959   |
| <i>gigas</i><br>var. <i>danaubento</i><br>Mochtar & Walandauw | Clear stagnant water in marshes containing "Bento" grass; indoors; 149   | Bonne-Wepster & Swellen-grebel | 1953   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|---|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>gigas</i>                                    | ---; ---; 77, 242   | Stone et al.                   | 1959   |
| var. <i>formosus</i><br>Ludlow                                      | Grassy margins of pools in stream beds, shaded stream pools, in an altitude of 4,700 feet; April-May; 242                       | King                           | 1931   |
|   | Irrigation ditches, rice fields; ---; 242   | Bonne-Wepster & Swellen-grebel | 1953   |
|   | Aquatic plants; at an elevation of 7,500 feet; 242  | Russell & Baisas               | 1935   |
| <i>gigas</i><br><i>gigas</i><br>Giles                               | Above 5,000 feet elevation; ---; 70, 143 (Springs, ponds with vegetated margins, seepage pools, in                              | Russell et al.                 | 1943   |
| <i>gigas</i><br>var. <i>oedjalikala-hensis</i><br>Nainggolan        | Fresh water springs in forest, mountain and streams, stagnant pools, swamps, jungle; in houses; 149                             | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>gigas</i><br>var. <i>pantjarbatu</i><br>Waktoedi                 | ---; ---; 149   | Stone et al.                   | 1959   |
| <i>gigas</i><br>var. <i>refutans</i><br>Alcock                      | Small stream pools, fresh water springs, vegetated and seepage ponds, marshy places among grass; occasionally enters houses; 70 | Boyd                           | 1949 + |
|   | Drains; ---; 70°  | D'Abrera                       | 1944   |
| <i>gigas</i><br>var. <i>simlensis</i><br>(James)                    | ---; ---; 59, 235   | Christophers                   | 1924   |
|   | ---; ---; 70  | Stone et al.                   | 1959   |
|   | Cool water mountain pools; ---; 76  | Feng                           | 1938 + |
|   | Ponds with vegetation, seepages, marshy areas, stream pools; ---; 143   | Boyd                           | 1949 + |
|   | Artificial containers, fallow rice fields, swamps, hillstreams, rainwater and spring pools, tanks, walls; ---, 143              | Russell & Jacob                | 1942   |
|   | ---; jungles, rainy season; 143   | Iyengar                        | 1930 b |
| <i>gigas</i><br>var. <i>sumatrana</i><br>Swellengrebel & Rodenwaldt | ---; ---; 145   | McArthur                       | 1950 + |
|   | Rice fields, altitude of 4,550 feet; rarely in houses; 149  | Russell et al.                 | 1943   |
|   | ---; ---; 242   | Smart                          | 1943   |
| <i>gigas</i><br>var. <i>udjalikalah</i><br>Waktoedi                 | ---; ---; 149   | Stone et al.                   | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                    | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|--|--|--------------------------------|--------|
| <i>ANOPHELES habibi</i><br>Mulligan & Puri | ---; ---; 143<br><br>Small irrigation channels; ---; 235   | Puri                           | 1936   |
| <i>hackeri</i><br>Edwards                  | ---; ---; 145, 149, 190 (Dead, hollow and split bamboos under shade, nipah swamps)   | Russell et al.                 | 1943   |
| <i>hanabusai</i><br>Yamada                 | ---; ---; 77   | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>hatorii</i><br>Koidzumi                 | Streams, pools; in houses; 76<br><br>---; ---; 77  | Yamada                         | 1925 + |
| <i>hispaniola</i><br>Theobald              | Clear, shallow, slow or rapid water with <i>Spirogyra</i> , swamps, water holes, artificial containers, ground pools, outdoors; ---; 159°<br><br>Sunlit or partly shaded streams, springs, ditches, seepages; ---; 159°  | Koidzumi                       | 1930   |
| <i>hunteri</i><br>(Strickland)             | ---; ---; 149, 190 (Clear water in jungle, indoors)<br><br>Pools, swamps and stream beds in the jungle; ---; 190<br><br>---; June, Sept.; 190. ---; pools; 280   | Lumsden & Yofe                 | 1950   |
| <i>hyrcanus</i><br>Pallas                  | ---; ---; 28, 118, 143, 158, 256, 321, 345 (Reservoirs, rice fields, bites man)<br><br>Marshes, rice fields; ---; 31<br><br>Still water with vegetation, reservoirs, rice plots, plains; ---; 35<br><br>Shell craters, rice fields, forests; Aug.-Oct., enter houses; 59°<br><br>---; ---; 59 (Lake pools with vegetation and growths of brown alga) | Bonne-Wepster & Swellen-grebel | 1953   |
|  | ---; ---; naturally infected with filaria, Sept., Oct., Dec. and Feb.; 70  | Russell et al.                 | 1943   |
|  | ---; ---; naturally infected with malaria; 70, 190.<br>---; malaria carrier; 337   | Strickland                     | 1916   |
|  | ---; occasionally carries malaria; 70  | Hindle & Chow                  | 1929   |
|  | Drain, swamps, wells, seepages, artificial containers; experimentally infected with malaria; 76, 77, 168, 190  | Carter                         | 1945   |
|  | Ponds, pools and streams; July-Aug.; 76  | Gater                          | 1934   |
|  |  | Chung & Lin                    | 1931   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>ANOPHELES hyrcanus</i><br>Pallas<br>(cont.) | Rice fields, stagnant and foul water in swamps; ---; 76, 158<br>---; possible malaria carrier; 76, 158<br>---; in houses; 76°<br>---; ---; 76*<br>---; ---; 76*. ---; naturally infected with malaria; 139, 194<br>---; ---; 76, 77, 143, 150, 158, 162, 190, 242,<br>337 (Shallow standing waters with vegetation,<br>swamps, lagoons, edges of ponds, ditches, rice<br>fields, seldom in houses, bites man day and<br>night)<br>Swamps, natural and artificial reservoirs, streams;<br>---; 118 | Lamborn<br>Lamborn<br>Feng<br>Toumanoff<br>Feng<br>Peus<br>Dzhaparidze        | 1922<br>1922 b<br>1932<br>1935<br>1935<br>1942<br>1937 |
|  | Hill streams, irrigation ditches, rice fields;<br>intermediate host of <i>Wuchereria bancrofti</i> ; 139<br>---; naturally infected with malaria, all year;<br>139<br>---; experimentally infected with <i>W. bancrofti</i> ;<br>139*<br>---; enters houses at night; 139°  | Jackson<br>Feng<br>Jackson<br>Jackson   | 1951<br>1937<br>1938 c +<br>1938 a                     |
|  | Rice fields; all year, in houses; 143<br>Tanks, ponds, pools, borrow pits with aquatic<br>vegetation; ---; 143  | Russell &<br>Ramachandra<br>Rao   | 1941<br>1942   |
|  | Field channels, wells, swamps; ---; 143<br>---; experimentally infected with <i>W. bancrofti</i> ; 144<br>---; July-February; 144<br>Swamps with much vegetation; enters houses, bites<br>man; 145°<br>---; ---; 145  | Abraham &<br>Samuels<br>Galliard<br>Treillard<br>Lee &<br>Woodhill<br>Kariadi | 1944<br>1936 +<br>1932<br>1944 +<br>1938               |
|  | Canals and rice fields; ---; 146*. Swamps; ---; 149<br>Marshes, rice fields; ---; 147, 158  | Wilcocks<br>Boyd  | 1944 d<br>1949 +                                       |
|  | Flooded areas among reeds, shaded irrigation<br>channels, reed beds; rarely indoors, bites at<br>night; 150°, 151°  | Macan   | 1950 +   |
|  | Rivers, swamps; ---; 150*   | Gutzevich   | 1948 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR               | DATE   |
|--|---|----------------------|--------|
| <i>ANOPHELES hyrcanus</i><br>Pallas<br>(cont.) | In patches of green algae; ---; 154   | Buxton               | 1922   |
|  | Marshes; ---; 154, 159  | Barraud              | 1921   |
|  | Marshes, ditches, seepages; bites man in marshes; 159°  | Lumsden & Yofe       | 1950 + |
|  | Shallow, standing water with vegetation, swamps, delta formations lake banks, ditches and rice fields; bites man outdoors day and night; 162° | Peus                 | 1942 + |
|  | ---; in desert, rare in foothills; 162  | Balkashina           | 1939   |
|  | Rice fields; enters houses; 166°  | Petrishcheva         | 1940   |
|  | ---; cottage roof; 168  | Hsiao                | 1948   |
|  | Irrigation channels, swampy areas; ---; 174, 302  | Leeson               | 1950 + |
|  | Paddy fields, swampy pools, ponds; Oct.-April; 190  | Lamborn              | 1922 a |
|  | ---; bites man in the open, in houses; 190°   | Wharton              | 1953   |
|  | ---; May-July; 190  | Kingsbury            | 1933   |
|  | Ponds, ditches, marshes; carrier of malaria; 194  | Feng                 | 1937   |
|  | ---; ---; 218   | Puri                 | 1 +8 - |
|  | ---; ---; 235   | Iyengar              | 1944   |
|  | Rice fields, dam; ---; 242  | Baisas               | 1931   |
|  | Ponds; ---; 242   | Mieldazis            | 1930   |
|  | Swamps, borrow pits, streams, artificial containers; ---; 256°  | Gutzevich            | 1937   |
|  | Muddy ponds with vegetation; ---; 256   | Lomeiko              | 1942   |
|  | Rice fields, irrigation ditches; ---; 256   | Zvyagintzev          | 1939   |
|  | ---; enters houses; 256   | Plyater-Plokhotzkaya | 1939   |
|  | Dense cover of weeds; ---; 277  | Causey               | 1937   |
|  | ---; ---; 280   | Kumm                 | 1929   |
|  | Rice fields, swamps, seepages; ---; 303   | Glagoleva            | 1947   |
|  | ---; carrier of malaria; 317  | Anonymous            | 1944   |
|  | ---; active after sunset; 317   | Noyan                | 1951   |
|  | ---; in trains, July and Aug.; 317  | Arar & Atamanoglu    | 1938   |

TABLE I - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY, DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|--|--|--|--|
| <i>ANOPHELES</i><br><i>hyrcanus</i><br>Pallas<br>(cont.)               | Irrigation systems; ---; 318<br>---; ---; 318°<br>Rice fields, lakes, shallow rivers with vegetation;<br>---; 321<br>---; bites man during day; 321°<br>---; enters house; 321<br>Rivers, springs, drainage and irrigation ditches,<br>rice fields, warm shallow creeks with vegetation;<br>May-Sept.; 326<br>Swamps; ---; 326<br>Stagnant water, low-lying areas, burrow pits,<br>seepage areas and high ground water areas with<br>puddles and vertical vegetation; ---; 342<br>Swamps covered with vegetation, small river bank<br>pools; ---; 342<br>---; all year; 342<br>Rice fields, swamps, brackish water; ---; 345 | Petrishcheva<br>Mitrofanova<br>Goritzkaya<br>Pazhitnova<br>Yatzenko<br>Ulicheva<br>Kazantzev<br>Shapiro<br>Saliternik<br>Stuart<br>Zaitzev | 1931<br>1941<br>1939<br>1935<br>1926<br>1943<br>1932<br>1933<br>1933<br>1933 |
| <i>hyrcanus</i><br>var. <i>argyropus</i><br>Sweilengrebel              | ---; ---; 146  | Christophers   | 1924 b   |
| <i>hyrcanus</i><br><i>lesteri</i><br>Baisas &<br>Hu                    | Springs, along lake margins, slow-flowing canals;<br>---; highlands; 242   | Bohart<br>Baisas &<br>Hu   | 1945<br>1936   |
| <i>hyrcanus</i><br><i>mahmuti</i><br>Martini                           | ---; ---; 303<br>---; ---; 350   | Keshish'yan<br>Martini   | 1941 +<br>1930   |
| <i>hyrcanus</i><br><i>marzinowskii</i><br>Shingarew                    | ---; ---; 345  | Martini  | 1930   |
| <i>hyrcanus</i><br>var. <i>mesopotamiae</i><br>Christophers &<br>Chand | Tree holes with decomposed vegetation; ---; 118<br>---; ---; 151<br>---; ---; 162<br>---; ---; 303<br>---; ---; 326  | Kalandadze &<br>Tairova<br>Christophers &<br>Shortt<br>Shingarev<br>Latuishev<br>Khodukin  | 1939<br>1921 b<br>1926 +<br>1929 +<br>1927                                   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE                                   |
|--|---|---|--|
| <i>Anopheles hyrcanus</i><br>var. <i>nigerrimus</i><br>Giles | ---; ---; 59, 70 (Rice fields, stagnant vegetated canals, impounded water areas, borrow pits, lakes, streams)<br>---; ---; 70*, 143*. ---; naturally infected with <i>Wuchereria bancrofti</i> ; 190<br>Rice fields, ponds or pools with vegetation, swamps, irrigation channels; enters houses; 76°<br>Still water, river bed pools with heavy vegetation, rain water pools; ---; 76°<br>---; ---; 76*, 143*, 144*, 158*, 190*, 337* | Russell et al.<br>Manson-Bahr<br>Chang<br>Li & Wu<br>Geigy & Herbig | 1943<br>1959<br>1940<br>1934 +<br>1955 |
|  | River, rice field; ---; 122   | de Mello & Bras de Sa   | 1935                                   |
|  | ---; ---; 133, 139  | Feng  | 1937                                   |
|  | Rice fields, irrigation channels, hill streams, spring pools, tanks and wells; ---; 143   | Russell & Jacob   | 1942                                   |
|  | Stagnant ponds and ditches; ---; 143  | Iyengar   | 1930                                   |
|  | Surface wells and springs; ---; 143   | McCombie Young & Bailly   | 1928                                   |
|  | ---; all year; 143  | Iyengar   | 1932                                   |
|  | ---; ---; 143, 144, 190, 242, 277. ---; naturally infected with malaria; 146, 149 (Rice fields, swamps, tanks with much vegetation, borrow pits, edges of slow moving streams, rarely in houses, bites in evening and in shade during day)  | Covell  | 1944                                   |
|  | Clear water, stagnant or free flowing, with vegetation; enters houses; 144  | Borel   | 1930 a                                 |
|  | In grassy streams and pools; November-April; 144  | Borel   | 1926                                   |
|  | Stagnant pools; ---; 144  | Toumanoff   | 1932                                   |
|  | ---; May, June, naturally infected with malaria; 144  | Gaschen   | 1936                                   |
|  | Pools, buffalo wallows; enters houses; 145  | Colless   | 1948                                   |
|  | ---; possible vector of malaria; 145  | McArthur  | 1950                                   |
|  | ---; possible vector of malaria; 149  | Roy & Brown   | 1954                                   |
|  | Swamps; ---; 190°   | Hodgkin & Johnston  | 1935                                   |
|  | ---; possible malaria carrier; 190. Grassy pools, irrigation ditches, rice or forage paddies; common, July-Sept.; 242   | Baisas & Hu   | 1936                                   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                  | AUTHOR                   | DATE     |
|---|--|--------------------------|----------|
| <i>ANOPHELES hyrcanus</i><br>var. <i>nigerrimus</i><br>Giles<br>(cont.) | ---; stables, naturally infected with malaria, Jan.-April; 190                           | Kingsbury                | 1932     |
|   | ---; experimentally infected with <i>Plasmodium falciparum</i> and <i>P. vivax</i> ; 190 | Green                    | 1935     |
|   | ---; April-Dec.; 190   | Kingsbury                | 1931     |
|   | Dams, rice fields; Sept.-Oct.; 242   | Baisas                   | 1931     |
|   | Stagnant vegetated canals and impounded water;<br>---; 242                               | Russell & Raisas         | 1935     |
|   | Open and closed ditches, rice fields; in houses;<br>277                                  | Causey                   | 1937     |
|   | Grassy portions of flooded fallow land; common; 277                                      | Barraud & Christophers   | 1931     |
| <i>hyrcanus peditaeniatus</i><br>Leicester                              | Rice fields, swamp with vegetation; enters houses;<br>149                                | Farner                   | 1943     |
|   | ---; ---; 190  | Brug & Edwards           | 1931     |
|   | ---; ---; 242  | Edwards                  | 1929     |
| <i>hyrcanus pictus</i><br>Loew  | ---; ---; 342  | Edwards                  | 1929 a + |
| <i>hyrcanus popovi</i><br>Schingarev                                    | ---; ---; 162  | Martini                  | 1930     |
| <i>hyrcanus pseudopictus</i><br>Grassi                                  | Rice fields; ---; 28   | Ananyan                  | 1929     |
|   | ---; ---; 144  | Koun                     | 1926     |
|   | Rice fields, swamps; enters houses; 146, 147°  | Farner                   | 1943 +   |
|   | ---; ---; 162, 317   | Smart                    | 1943 +   |
|   | Irrigation ditches and flooded meadows; ---; 166   | Raevskii & Vinogradskaya | 1934     |
|   | River floods, irrigation ditches; ---; 256*  | Terdschanian             | 1929 +   |
|   | Flooded estuaries of rivers; ---; 256  | Danilova & Lappen        | 1937     |
|   | ---; enters houses; 256  | Shipitzuina              | 1934     |
|   | ---; ---; 303  | Latushev                 | 1929     |
|   | Lakes, streams, swamps with dense vegetation; ---;<br>318                                | Petrishcheva             | 1936 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE   |
|---------------------------|--|---------------------|--------|
| <i>ANOPHELES hyrcanus</i> | ---; common, rarely in houses; 321   | Goritzkaya          | 1938   |
| <i>pseudopictus</i>       | ---; ---; 321°   | Dolbeshkin          | 1928 + |
| <i>Grassi</i>             | Ditches with saline water; experimentally infected with malaria; 326   | Lisova              | 1932   |
| (cont.)                   | Rice fields; ---; 326  | Pazhitnova          | 1929   |
|                           | ---; enters houses; 326°   | Lisova & Eskin      | 1932   |
|                           | ---; ---; 342, 350   | Senevet & Andarelli | 1956   |
|                           | Swamps, rice fields, brackish water; ---; 345*   | Zaitzev             | 1934   |
| <i>hyrcanus</i>           | Large bodies of water with vegetation, lakes and ponds; ---; 242   | Baisas & Hu         | 1936   |
| <i>pseudosinensis</i>     |  |                     |        |
| <i>Baisas</i>             |  |                     |        |
| <i>hyrcanus</i>           | Open or grass covered stagnant water, swamps, ponds, lakes, wells, drains and ditches and in the water of rice fields; ---; 59*  | Wilcocks            | 1944   |
| var. <i>sinensis</i>      |  |                     |        |
| Wiedemann                 | Ponds, pools, ditches, marshes, lakes; naturally infected with malaria, experimentally infected with <i>Plasmodium malariae</i> , <i>P. vivax</i> and <i>P. falciparum</i> , all year; 76. ---; naturally infected with malaria, all year; 139. Ponds, ditches, marshes; naturally infected with malaria, experimentally infected with <i>P. vivax</i> ; 194. ---; carrier of malaria; 210 | Feng                | 1937   |
|                           | Rivers, drains; possible intermediate host of <i>Wuchereria malayi</i> ; 76. ---; naturally infected with <i>W. bancrofti</i> , possible vector of filariasis; 139. ---; naturally infected with <i>W. bancrofti</i> , possible intermediate host of <i>W. malayi</i> ; 144. ---; possible intermediate host for the transmission of <i>W. malayi</i> ; 337                                | Hsiao               | 1945   |
|                           | Ground water, artificial containers; enters houses; 76**°. ---; ---; 194°  | Hsiao               | 1946   |
|                           | Rice paddies and grassy ditches; bites at night; 76°   | Meng                | 1943   |
|                           | Manure pits with rain water; ---; 76   | Crook               | 1939 + |
|                           | ---; experimentally infected with <i>P. vivax</i> , <i>P. malariae</i> , <i>P. falciparum</i> ; 76*, 133   | Feng                | 1935   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR            | DATE   |
|---|--|-------------------|--------|
| <i>ANOPHELES</i><br><i>hyrcanus</i><br>var. <i>sinensis</i><br>Wiedemann<br>(cont.) | ---; natural and experimental vector of <i>W. bancrofti</i> ; 76   | Raghavan          | 1961   |
|   | ---; possible vector of malaria; 76  | Toumanoff & Hu    | 1935   |
|   | ---; possible vector of <i>W. malayi</i> ; 76  | Behart            | 1946   |
|   | Still and running water, in rice fields; common, possible vector of malaria; 77  | Chow              | 1949 b |
|   | ---; in plains along rivers and lakes, carrier of <i>P. vivax</i> ; 77*, 168 Ponds, temporary and permanent pools, marshes, rice fields, water reservoirs, ditches, artificial containers; enters houses, carrier of <i>P. vivax</i> , in plains along rivers and lakes, June-Oct.; 158* | Yamada            | 1925   |
|   | ---; enters houses; 77°. ---; naturally infected with malaria; 144, 149 (Rice fields, swamps, tanks with vegetation, borrow pits, edges of slow moving streams). ---; ---; 145, 146  | Covell            | 1944   |
|   | ---; ---; 77, 143, 168 (Stagnant water in rice fields, pools, swamps and ponds, along shores of streams and lakes)   | Russell et al.    | 1943   |
|   | Stagnant water with vegetation, sluggish streams; malaria carrier; 139   | Jackson           | 1938   |
|   | Mountain streams; ---; 139. Fresh and saline water; potential carrier of malaria; 190. In high lands of considerable elevation; ---; 242. ---; ---; 280  | Baisas & Hu       | 1936   |
|   | ---; ---; 139*, 158*   | Manson-Bahr       | 1959   |
|   | Swamps, irrigation canals, rice fields; ---; 144   | Wilcocks          | 1944 c |
|   | Stagnant water with vegetation; ---; 144   | Borel             | 1930 a |
|   | ---; naturally infected with malaria; 144. ---; ---; 337*  | Toumanoff & Canet | 1940   |
|   | ---; experimentally infected with <i>W. bancrofti</i> and <i>W. malayi</i> , experimental transmission of <i>W. malayi</i> , probable vector of Filariasis; 144  | Galliard          | 1938   |
|   | ---; all year, in houses; 144  | Raynal & Gaschen  | 1935   |
|   | ---; ---; 144*   | Gaschen           | 1936   |
|   | ---; ---; 144°   | Toumanoff         | 1935 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                | DATE   |
|--|--|-----------------------|--------|
| <i>ANOPHELES</i><br><i>hyrcanus</i><br>var. <i>siensis</i><br>Wiedemann<br>(cont.) | ---; naturally infected with <i>W. malayi</i> ; 146. ---; naturally infected and carrier of <i>W. malayi</i> ; 190   | Hu                    | 1940   |
|  | ---; ---; 146°   | Hu & Yu               | 1937   |
|  | ---; carrier of malaria; 149, 158, 168   | Roy & Brown           | 1954   |
|  | Rice fields, slow streams, ground pools; ---; 158°   | Sasa & Sabin          | 1950   |
|  | ---; naturally infected with <i>W. bancrofti</i> ; 158   | Yamada & Komori       | 1927   |
|  | ---; experimentally infected with <i>W. bancrofti</i> ; 158  | Yamada                | 1928   |
|  | ---; experimental transmission of Japanese "B" encephalitis; 158   | Mitamura et al.       | 1950   |
|  | ---; indoors, May-Aug.; 158  | Mitamura & Kitaoka    | 1950   |
|  | Rice paddies, ponds, swamps, lakes, ditches, streams and large tanks; enters houses, night biter, vector of malaria, possible vector of filariasis, possible vector of Japanese "B" encephalitis; 168* | Barnett & Toshioka    | 1951   |
|  | Swamps, streams; carrier of malaria, all year; 190°  | Hodgkin & Johnston    | 1935   |
|  | ---; experimentally infected with <i>P. falciparum</i> ; 190   | Green                 | 1935   |
|  | ---; experimentally infected with <i>P. vivax</i> ; 190  | Kingsbury             | 1932   |
|  | Stagnant pools, lakes, rice fields; bites at night and rarely during day; 194°   | Anonymous             | 1946   |
|  | Spring with vegetation, lakes; May and Aug.; 242   | Baisas                | 1931   |
|  | ---; Oct. to Dec.; 242   | Russell               | 1931   |
|  | ---; ---; 317  | Sabit                 | 1927 + |
|  | Marshes; April-June; 342   | Anonymous             | 1944 c |
|  | Stagnant marsh, small sluggish streams; ---; 342   | Jerusalem             | 1941 + |
|  | ---; ---; 342°   | Kligler               | 1930 + |
| <i>hyrcanus</i><br>var. <i>sineroides</i><br>Yamada                                | ---; ---; 76   | Faust                 | 1926   |
| <i>hyrcanus</i><br><i>vanus</i><br>Theobald  | ---; ---; 151  | Christophers & Shortt | 1921 b |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|--|--|--|--|
| <i>ANOPHELES</i><br><i>hyrcanus</i><br><i>williamsoni</i><br>Baisas & Hu | Slow moving stream margins, rice fields, swamps, artificial containers, borrow pits; enters houses, bites man by night and by day in shade, naturally infected with malaria; 145°, 146°, 149°, 190°<br><br>---; ---; 190   | Boyd<br><br>Baisas & Hu  | 1949 +<br><br>1936   |
| <i>immaculatus</i><br>Theobald   | ---; ---; 143<br><br>---; ---; 146, 149  | Christophers   | 1916   |
| <i>indefinitus</i><br>(Ludlow)   | ---; ---; 77<br><br>---; ---; 139 .  | Brug & Edwards<br><br>Anonymous  | 1931<br><br>1915   |
|  | Ponds; ---; 242  | King & del Rosario   | 1935   |
| <i>indiensis</i><br>Theobald   | ---; ---; 59, 143, 144, 145, 146, 149, 190, 277<br><br>---; ---; 77<br><br>---; ---; 139   | Bonne-Wepster & Swellengrebel<br><br>Koidzumi<br><br>Anonymous   | 1953<br><br>1927 +<br><br>1915   |
| <i>insulaeflorum</i><br>(Swellengrebel<br>& Swellengrebel-<br>de Graaf)  | Small streams; ---; 70<br><br>---; ---; 70, 77, 143, 146, 147 (Shaded forest streams, among debris floating in stagnant water)<br><br>In forest in sun and shade; ---; 143<br><br>---; Feb., Sept.; 143<br><br>---; ---; 145<br><br>---; ---; 149, 190, 337. Shaded streams; ---; 158<br><br>Quiet, shaded forest streams and among debris with stagnant water; ---; 242 | D'Abraera<br><br>Russell et al.<br><br>Boyd<br><br>Puri<br><br>Bonne-Wepster<br><br>Hsiao & Bohart<br><br>Russell & Baisas | 1944<br><br>1943<br><br>1949 +<br><br>1930<br><br>1953<br><br>1946<br><br>1935 |
| <i>intermedius</i><br>Schingarev   | ---; ---; 256  | Stone et al.   | 1959   |
| <i>jamesii</i><br>Theobald   | Lakes and grassy ponds; ---; 59<br><br>---; ---; 59, 143, 144. (Pools in river beds, rice fields, springs, seepage pools, tanks, in houses)<br><br>---; ---; 59 (Lake pools with vegetation and growths of brown algae)  | Christophers<br><br>Boyd<br><br>Jones  | 1933 +<br><br>1949<br><br>1949   |
|  | Grass-edged streams in deep shade, sunlit rivers;<br>March-Apr.; 70  | Senior-White   | 1920   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|---|--|--------------------------------|--------|
| <i>ANOPHELES jamesii</i><br>Theobald<br>(cont.) | ---; ---; 70, 76 (River beds, rice fields, seepage pools with grassy margins, artificial containers, enters houses)    | Russell et al.                 | 1943   |
|   | ---; ---; 70, 143 (Ditches, ponds and tanks with vegetation)   | Roy & Brown                    | 1954   |
|   | On shores of river, ponds, water holes: March, Oct., dry season and at end of rainy season; 122                        | de Mello & Bras de Sa          | 1935   |
|   | ---; ---; 133, 139, 144. Ponds and rain pools; ---; 76   | Hsiao                          | 1945   |
|   | Swamps; Sept.-Oct., Dec.; 143  | Abraham & Samuels              | 1944   |
|   | Small muddy puddles; in houses; 143, 235   | Strickland & Chowdhury         | 1927   |
|   | In tanks with masses of floating algae; April-June; 143  | Sen                            | 1941   |
|   | Growing rice fields, irrigation channels, swamps, hill streams, rain water and spring pools, tanks and wells; ---; 143 | Russell & Jacob                | 1942   |
|   | Streams outside the jungle; ---; 143   | Iyengar                        | 1930 b |
|   | ---; experimentally infected with <i>Plasmodium falciparum</i> ; 143   | Iyengar                        | 1933   |
|   | ---; Jan.-May; 143   | Russell & Ramachandra Rao      | 1941   |
|   | ---; ---; 143, 144 (Lakes and grassy rain pools and ponds, pools in river beds, springs, surface well, enters houses)  | Bonne-Wepster & Swellen-grebel | 1953   |
|   | Rock pools with vegetation; ---; 144   | Borel                          | 1927 a |
|   | ---; ---; 146  | Swellen-grebel                 | 1920 + |
|   | Large, grassy swamp; in houses; 277°   | Barnes                         | 1923   |
|   | ---; Aug.-Nov.; 27?  | Barnes                         | 1923 a |
|   | ---; ---; 349  | de Mello & Afonso              | 1921   |
| <i>jekifi</i><br>Patton                         | ---; ---; 2  | Stone et al.                   | 1959   |
| <i>jeyporiensis</i><br>James                    | Grassy river margins, rice fields, drains, mountain valleys, foothills; carrier of malaria; 59                         | Wilcocks                       | 1944   |
|   | Forest pools; enter houses at night; 59°   | Macan                          | 1948   |

TABLE I - MOSQUITOES (continued)

| SPECIES                           | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                            | DATE   |
|-----------------------------------|---|-----------------------------------|--------|
| <i>ANOPHELES<br/>jeyporiensis</i> | ---; Apr., May; 59*   | Macan                             | 1950 a |
| James<br>(cont.)                  | ---; ---; 59, 143, 366 (Streams, rice fields, marshy edges of streams, lakes and ponds). ---; naturally infected with malaria; 143                | Covell                            | 1944   |
|                                   | ---; ---; 70  | Senior-White                      | 1925   |
|                                   | Hilly streams, seepage water from hill; naturally infected with malaria; 76   | Feng                              | 1937   |
|                                   | Open slow-flowing water, river margins, streams with grassy edges, drains, drainage channels, rice fields; ---; 76*                               | Robertson                         | 1940   |
|                                   | ---; at 1,700 elevation; 76, 144 (Bites at night)   | Gaschen                           | 1935 a |
|                                   | ---; in houses, all year; 76°   | Chow &<br>Balfour                 | 1949   |
|                                   | ---; infected with oocysts; 76  | Feng                              | 1932   |
|                                   | Rice fields, pools with rice stubble; important malaria carrier, naturally infected with <i>Wuchereria bancrofti</i> ; 139                        | Jackson                           | 1938   |
|                                   | Slow flowing streams, pools with vegetation; ---; 139   | Li & Wu                           | 1934 + |
|                                   | ---; in huts; 139°  | Jackson                           | 1938 a |
|                                   | ---; naturally infected with malaria; 139   | Feng                              | 1935   |
|                                   | ---; ---; 139*  | Russell                           | 1956   |
|                                   | Fallow and growing rice fields, field and irrigation channels, swamps, hill streams, rain water and spring pools, tanks and wells; in houses; 143 | Russell &<br>Jacob                | 1942   |
|                                   | Streams, grassy lake margins; bites indoors and in open at dusk, suspected vector of malaria; 143°  | Bonne-Wepster<br>& Swellen-grebel | 1953   |
|                                   | ---; common, March-April; 143   | Young &<br>Majid                  | 1929   |
|                                   | ---; Oct.; 143  | Perry                             | 1914   |
|                                   | Streams; carrier of filaria; 144  | Wilcocks                          | 1944 c |
|                                   | ---; all year, in houses, naturally infected with malaria; 144°   | Raynal &<br>Gaschen               | 1935   |
|                                   | ---; at the beginning of the rain season, rare; 144*  | Toumanoff &<br>Canet              | 1940   |
|                                   | ---; ---; 144*  | Raghavan                          | 1961   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES<br/>jeyporiensis<br/>var. candidiensis<br/>Koidzumi</i> | Running water in ditches; ---; 59, 143, 144   | Russell et al.                 | 1943   |
|  | ---; suspected vector of malaria; 59. ---; naturally infected with malaria; 143. ---; naturally infected with malaria, enters houses; 144°. ---; ---; 59, 77, 143, 144, 366 (River margins, streams, ditches, swamps, rice fields, seepage outcrop) | Covell                         | 1944   |
|  | ---; Aug.-Oct., marshy forest areas, active by night, indoors at night; 59  | Macan                          | 1948   |
|  | ---; naturally infected with malaria; 59*, 76*, 143*, 144*  | Boyd                           | 1949   |
|  | ---; ---; 59, 77, 143 (In running water in grassy drains, naturally infected with malaria)  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Swamps formed from seepage water draining from the sides of hills and slopes; ---; 76*°. ---; naturally infected with malaria; 139  | Feng                           | 1935   |
|  | Streams, irrigation channels, pools and ponds, swamps, rice fields; enters houses; 76   | Chang                          | 1940   |
|  | Hilly streams; carrier of malaria; 76, 133, 139   | Feng                           | 1937   |
|  | ---; natural carrier of malaria, July-Dec.; 76  | Yao et al.                     | 1943   |
|  | Seepage water and ditches; ---; 77  | Chow                           | 1949 b |
|  | ---; ---; 133. Shallow grassy streams and irrigation ditches; probable vector of filariasis; 76°. ---; naturally infected with <i>Wuchereria bancrofti</i> ; 139  | Hsiao                          | 1945   |
|  | Hill streams, irrigation ditches, rice cultivation and flooded fallow fields; in buildings, malaria carrier, May-Oct.; 139  | Jackson                        | 1951   |
|  | Swamps; ---; 139  | Burke                          | 1937 + |
|  | ---; naturally infected with <i>W. bancrofti</i> ; 139*   | Manson-Bahr                    | 1959   |
|  | ---; Apr.-Dec., abundant in morning; 139  | Jackson                        | 1936   |
|  | ---; ---; 139*  | Raghavan                       | 1961   |
|  | ---; carrier of malaria; 144, 277. ---; ---; 235*   | Roy & Brown                    | 1954   |
|  | ---; naturally infected with filaria; 144   | Farner et al.                  | 1946 + |
|  | ---; ---; 235 (Prssible vector of malaria)  | Senior-White                   | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|---|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>jeyporiensis</i><br><i>jeyporiensis</i><br>James | ---; ---; 143, 144 (Streams, marshy edges of lakes, ponds and rice fields). ---; enters houses, naturally infected with malaria; 143°. ---; in houses; 144°   | Russell et al.                 | 1943   |
| <i>Karvari</i><br>James   | Hill-foot seepages, marshy bottoms between hillocks; Oct. and Nov.; 59  | Macan                          | 1950 a |
|   | ---; enters houses; 59°, 70°, 76°, 145° (Shaded streams, springs, pools, drains, seepages, swamps)  | Russell et al.                 | 1943   |
|   | ---; ---; 59, 70, 143, 190, 366 (Clear shaded streams, spring pools, drains, seepages, swamps, enters houses, feeds on humans). Seepage pools; ---; 143. Pools; suspected vector of malaria; 190                    | Covell                         | 1944   |
|   | Rock springs; ---; 70   | Senior-White                   | 1920 a |
|   | ---; ---; 70, 143, 366 (Ravines)  | Roy & Brown                    | 1954   |
|   | Pools in rocky streams, river and torrent beds, seepages, springs, below reservoirs; ---; 76  | Robertson                      | 1940   |
|   | Mountain streams, drains, pools in beds of streams or rivers; ---; 76   | Chang                          | 1940   |
|   | Ponds, pools, slowly flowing streams; ---; 76. ---; ---; 133. ---; naturally infected with malaria; 190   | Hsiac                          | 1945   |
|   | ---; ---; 76, 143, 144, 145, 149, 190, 242, 277 (In little streams, springs, seepage water along streams and irrigation canals, rice fields, in houses, experimentally infected with <i>Plasmodium falciparum</i> ) | Bonne-Wepster & Swellen-grebel | 1953   |
|   | ---; Feb., June; 122  | James                          | 1904   |
|   | Clear shaded streams, spring pools; enters houses; 139°   | Simmons & Aitkens              | 1942 + |
|   | Swamps, streams, abandoned rice fields, ditches; rare; 139  | Jackson                        | 1938   |
|   | ---; naturally infected with malaria; all year; 139   | Feng                           | 1937   |
|   | ---; experimental transmission of malaria; 139  | Li & Wu                        | 1934 + |
|   | Grassy pools or seepage water, exposed to the sun or lightly shaded, seepages bordering paddie fields; ---; 143. ---; ---; 145  | Colless                        | 1948   |
|   | Jungle streams; ---; 143  | McCombie Young & Bailly        | 1928   |
|   | ---; Aug.-Sept.; 143  | Strickland & Chowdhury         | 1930   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                    | DATE   |
|--|--|---------------------------|--------|
| <i>ANOPHELES</i><br><i>karwari</i><br>James<br>(cont.) | ---; in houses; 143  | Russell &<br>Jacob        | 1942   |
|  | ---; Oct.; 143   | Perry                     | 1914   |
|  | Swamps, bogs, streams with grassy margins; ---; 144, 190   | Toumanoff                 | 1932   |
|  | ---; all year, in houses; 144  | Raynal &<br>Gaschen       | 1935   |
|  | ---; ---; 146  | Swellen-<br>göbel         | 1920 + |
|  | Grassy pools, wheel ruts in bogs; ---; 149, 242  | Boyd                      | 1949 + |
|  | Contaminated water at the edge of a running stream; ---; 190   | Smart                     | 1914   |
|  | Drains with vegetation, weed tanks, ---; 190   | Christophers              | 1933 + |
|  | Small open pools; ---; 190   | Lamborn                   | 1922 a |
|  | Swamps; ---; 190   | Hodgkin<br>et al.         | 1935   |
|  | ---; experimentally infected with <i>P. falciparum</i> and <i>P. vivax</i> ; 190   | Green                     | 1935   |
|  | ---; in houses; 190°   | Wharton                   | 1953   |
|  | ---; May-June, Aug.-Nov.; 190  | Kingsbury                 | 1931   |
|  | ---; Jan., March; 190  | Kingsbury                 | 1932   |
|  | -; Apr., Jul.; 190   | Kingsbury                 | 1933   |
|  | Clearings and clear shaded streams, ditches, seepage pools and swamps; experimentally infected with malaria; 242   | Bohart                    | 1945   |
|  | ---; enters houses, May; 277°  | Barnes                    | 1923   |
|  | ---; at 2,500 feet elevation; 277  | Barraud &<br>Christophers | 1931   |
| <i>kinoshitai</i><br>Koidzumi                          | ---; ---; 77   | Stone et al.              | 1959   |
| <i>kochii</i><br>Dünitz                                | Standing water between furrows; ---; 59. ---; ---; 76, 77, 145, 147, 242, 277, 366. ---; naturally infected with malaria; 143, 149. ---; enters houses at night, naturally infected with malaria; 144. Buffalo wallows, wheel tracks, sewage drains; ---; 190. ---; suspected vector of malaria, naturally infected with malaria; 337 (Small muddy pools, rice fields, streams, irrigation channels, enters houses, bites man) | Covell                    | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>Anopheles kochi</i><br>Dönnitz<br>(cont.) | Artificial containers, irrigation ditches, in sun or shade; ---; 59, 76, 144, 146°, 147°, 242, 277  | Simmons                        | 1942 + |
|  | In pools freshly formed, often muddy rain pools; ---; 59, 143   | Christophers                   | 1916   |
|  | ---; Feb., Mar., Aug.-Dec., active by day and night; 59   | Macan                          | 1948   |
|  | ---; ---; 59, 76, 143, 144, 145, 146, 147, 149, 190, 242, 277. ---; naturally infected with malaria; 337 (Small shallow muddy collections of water, in houses, bites man)   | Bonne-Wepster & Swellen-grebel | 1953   |
|  | ---; bites man outdoors; 59°  | Macan                          | 1950 a |
|  | ---; ---; 59, 143, 337 (Ground pools)   | Roy & Brown                    | 1954   |
|  | Rice fields, shallow rain-filled excavations; enters houses; 76   | Chang                          | 1940   |
|  | Buffalo wallows, hoof prints, road ruts; ---; 76, 144, 242  | Farner et al.                  | 1946 + |
|  | Borrow pits; ---; 76  | Robertson                      | 1940   |
|  | ---; in houses, Oct., Nov.; 76  | Chow & Balfour                 | 1949   |
|  | ---; ---; 77, 158   | Yamada                         | 1925 + |
|  | ---; ---; 133, 139 (Rice fields, muddy rain water pools)  | Hsiao                          | 1945   |
|  | Buffalo wallows; enters houses; 143, 146  | Christophers                   | 1933 + |
|  | Temporary pools; ---; 143. Borrow pits; ---; 235  | Strickland & Chowdhury         | 1927   |
|  | ---; naturally infected with malaria; 143°  | Ramsay                         | 1930 a |
|  | Small shallow ponds without vegetation; common; 144   | Borel                          | 1926 c |
|  | Small, sunny, muddy grassless pools; ---; 144*  | Borel                          | 1930 a |
|  | In brooks; ---; 144   | Borel                          | 1926 b |
|  | ---; enters houses at night; 144, 277   | Boyd                           | 1949 + |
|  | ---; naturally infected with malaria; 144   | Morin & Mesnard                | 1931   |
|  | ---; all year, in houses; 144   | Raynal & Gaschen               | 1935   |
|  | Pools, buffalo wallows, seepages open to sun or slightly shaded, swamps with tall grass, sedge, artificial containers; ---; 145. Almost any collection of water not subject to heavy shade, drains, buffalo wallows, paddy fields, seepages, and empty tins; ---; 149 | Colless                        | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|--|---|--|--|
| <i>ANOPHELES kochi</i><br>Dönnitz<br>(cont.) | Fishpond; ---; 145, 146, 147, 149<br>---; in houses, all year; 145<br>All types of fresh water; ---; 147<br>Stagnant water; Sept.-Dec., naturally infected with malaria; 149<br>---; March; 149<br>Pond; all year; 190<br>Permanent collection of water; carrier of malaria; 190<br>Swamps; ---; 190<br>---; experimentally infected with <i>Plasmodium falciparum</i> and <i>P. vivax</i> ; 190<br>---; experimentally infected with <i>P. malariae</i> ; 190<br>---; enters houses; 190<br>---; ---; 190* | Brug<br>Roper<br>Lee & Woodhill<br>Doorenbos<br>Stanton<br>Hacker<br>Green & Gater<br>Hodgkin et al.<br>Kingsbury<br>Green<br>Lamborn<br>Geigy & Herbig<br>Wharton<br>Bohart<br>Russell<br>Bick<br>Dy & Gapuz<br>Barnes<br>Causey<br>Russell & Baisas<br>Boyd<br>Hsiao | 1931 b<br>1914<br>1944 +<br>1931<br>1915<br>1923<br>1931<br>1935<br>1932<br>1935<br>1922 b<br>1955<br>1953<br>1945<br>1931<br>1949<br>1948<br>1923<br>1937<br>1935<br>1949<br>1948 |
| <i>kolambunganensis</i><br>Baisas            | Breeds in streams within virgin forest; rare; 242   |  |  |
| <i>koliensis</i><br>Owens                    | ---; enters houses, bites man at night; 145°  | Boyd   | 1949   |
| <i>koreicus</i><br>Yamada & Watanabe         | Ponds, marshes, muddy shaded pools, streams; adults bite at night; 76°, 158°, 168°  | Hsiao  | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                                   | DATE                 |
|--|--|--|----------------------|
| <i>ANOPHELES koreicus</i><br>Yamada &<br>Watanabe<br>(cont.) | Cool spring pools; ---; 76<br>---; ---; 158. ---; rare; 168<br>Ground pools, roadside ditches, stream margins;<br>enters houses; 168   | Hsiao<br>Yamada<br>Barnett &<br>Toshioka | 1945<br>1925<br>1951 |
| <i>k. reicus</i><br><i>edwardsi</i><br>Yamada                | Fresh water ground pools, tanks; ---; 158. ---;<br>---; 168<br>---; in houses; 158   | La Casse<br>& Yamaguti                   | 1950                 |
|  | Cool water; bites readily after dark; 158°   | Hsiao &<br>Bohart                        | 1946                 |
| <i>koreicus</i><br>var. <i>hiraoe</i><br>Tsuchimoto          | ---; ---; 158  | Stone et al.                             | 1959                 |
| <i>koreicus</i><br><i>k. reicus</i><br>Yamada &<br>Watanabe  | Rainpools, ditches, margins of slow moving streams;<br>---; 158  | La Casse &<br>Yamaguti                   | 1950                 |
| <i>kweiyangensis</i><br>Yao & Wu                             | Ground pools; ---; 76  | Chow                                     | 1949 a +             |
| <i>lygondawensis</i><br>Abraham                              | Small shady pools along streams, in jungle; ---; 59  | Boyd                                     | 1949                 |
| <i>labranchiae</i><br><i>atroparvus</i><br>van Thiel         | ---; possible vector of malaria; 76. ---; ---; 194*<br>(Ditches, enters houses)  | Hsiao                                    | 1945                 |
|  | Brackish water along coast and fresh water inland;<br>enters houses; 158°, 256*, 353*  | Russell<br>et al.                        | 1943                 |
|  | Brackish water along coastal areas, clear water;<br>in houses; 194°  | Hsiao                                    | 1946                 |
| <i>lesteri</i><br>Baisas & Hu                                | ---; ---; 145<br>---; naturally infected with and natural vector of<br><i>Wuchereria malayi</i> ; 190  | Stone et al.<br>Raghavan                 | 1959<br>1961         |
|  | Clear water in rice fields; ---; 242   | Bick                                     | 1949                 |
|  | Slightly brackish water; ---; 242  | Bonne-Wepster<br>& Swellen-<br>grebel    | 1953                 |
| <i>letifer</i><br>Sandosham                                  | ---; ---; 145, 149. Pools and stagnant drains; ---;<br>190 (Dark brown water of peaty land, fresh-water<br>pools, enters houses, bites from dusk to dawn, vector<br>of malaria, infected with <i>Plasmodium maliae</i> ) | Bonne-Wepster<br>& Swellen-<br>grebel    | 1953                 |
|  | Coastal plains, in shaded slow moving stagnant water;<br>---; 190*   | Russell                                  | 1956                 |
|  | ---; natural vector of <i>Wuchereria bancrofti</i> and<br><i>W. malayi</i> ; 190   | Raghavan                                 | 1961                 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENEPAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>letifer</i><br>Sandosham<br>(cont.) | ---; possible vector of malaria; 190°   | Wharton                        | 1953   |
| <i>Leucophrys</i><br>Dönitz                                | Open pool beside forest streams, well; ---; 11. ---; suspected vector of malaria; 55. Springs; ---; 70. ---; ---; 76. Stagnant pools in open jungle, jungle streams; ---; 143. ---; in houses, naturally infected with malaria, suspected vector of malaria; 144. ---; in huts, naturally infected with malaria; 145°. ---; on stream banks; 146. ---; naturally infected with malaria; 149. ---; in houses, possible vector of malaria; 337° | Covell                         | 1944   |
|  | ---; ---; 11, 70, 144, 146, 147, 149, 190, 242, 277. Wells with brackish water; naturally infected with malaria; 145. ---; infected with and suspected vector of malaria; 337 (Jungle pools and streams, pools with and without vegetation in nipa forest, springs, elephant foot prints, bomb craters, wheel ruts, in houses, bites man, infected with and suspected vector of malaria)  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Pot-holes in rocks, puddles with grassy and muddy bottoms, seepage pools, shady swamps, tree holes and artificial containers; enters houses, March-Dec.; 59*. ---; ---; 143*  | Kuitert & Hitchcock            | 1948   |
|  | Marshy forest areas with vegetation, slit trenches, stagnant back waters of large streams, artificial containers; bites man at night, Aug.; 59  | Macan                          | 1948   |
|  | Pools in forest streams; common in huts, possible carrier of malaria; 59, 143   | Christophers                   | 1916   |
|  | Densely shaded jungle streams, swamps; ---; 70, 122, 143  | Christophers                   | 1933 + |
|  | Tree holes, bamboos; ---; 70  | Wijesundara                    | 1942   |
|  | Ponds, pools in woods, rain water; ---; 76*   | Li & Wu                        | 1934 + |
|  | Shaded rock pools and stagnant water in beds of mountain streams; ---; 77   | Chow                           | 1949 b |
|  | Small pools in marshy, swampy area with elephant footprints; enter house, Feb.-March, and May-Nov.; 143   | Clark & Choudhury              | 1941   |
|  | Artificial containers, hill streams and wells; ---; 143   | Russell & Jacob                | 1942   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                      | AUTHOR            | DATE   |
|---|--|-------------------|--------|
| <i>ANOPHELES leucosphyrus</i><br>Dönnitz<br>(cont.) | Broken bamboo stalks, mud puddles, and artificial containers; April-November; 144*           | Borel             | 1930 a |
|   | Shaded puddles, tree holes filled with water; ---; 144                                       | Borel             | 1926 b |
|   | ---; naturally infected with malaria; 144  | Morin & Mesnard   | 1931   |
|   | Sago swamps, hill streams, clear pools, dams, artificial containers; July-Nov.; 145          | Roper             | 1914   |
|   | Jungle; ---; 145   | Colless           | 1948   |
|   | ---; naturally infected and natural vector of <i>Muchereria bancrofti</i> ; 145              | Raghavan          | 1961   |
|   | ---; malaria carrier; 145, 149   | Roy & Brown       | 1954   |
|   | Sunny or partially shaded, clean, standing or running water, artificial containers; ---; 146 | Lee & Woodhill    | 1944 + |
|   | Pools in marshy areas; ---; 146, 149, 242  | Boyd              | 1949 + |
|   | Shaded pools; ---; 146   | Wilcocks          | 1944 + |
|   | ---; March; 149  | Stanton           | 1915   |
|   | Shaded breeder, ravines and fallen bamboos; ---; 190.  | Hacker            | 1923   |
|   | Pools at the edge of streams; ---; 190   | Smart             | 1914   |
|   | Rock holes and stagnant pools in shaded mountain creeks; rare; 242                           | Russell & Baisas  | 1935   |
|   | Wheel ruts and foot prints in open shade; ---; 242°  | Cook              | 1954   |
|   | Mountain creek; ---; 242   | Baisas            | 1931   |
|   | ---; enters houses, May, Nov.; 277°  | Barnes            | 1923   |
|   | ---; ---; 337*   | Stoker & Koes.    | 1949 + |
|   | ---; ---; 349  | de Mello & Afonso | 1921   |
| <i>leucosphyrus balabacensis</i><br>Baisas          | ---; ---; 11, 59, 143, 144, 145, 149, 190  | Reid              | 1949   |
|   | ---; suspected transmitter of malaria; 59, 145   | Wharton           | 1953   |
|   | ---; ---; 145*   | Russell           | 1956   |
|   | Bomb craters, wheel ruts, pools with a fine silt bottom and clear water; ---; 242            | Colless           | 1948   |
|   | Forest creeks, streams and pools; ---; 242   | Baisas            | 1936   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                            | DATE   |
|---|---|-----------------------------------|--------|
| <i>ANOPHELES</i><br><i>leucosphyrus</i><br>var. <i>elegene</i><br>James | ---; ---; 11, 59, 70, 366. ---; Sept.-Oct.; 143   | Reid                              | 1949   |
| <i>Leucosphyrus</i><br>var. <i>hackeri</i><br>Edwards                   | Bamboo holes; ---; 145, 190   | Russell<br>et al.                 | 1943   |
|   | ---; naturally infected with <i>Muchereria bancrofti</i> ; 145  | Manson-Bahr                       | 1959   |
|   | ---; ---; 145, 190 (Under shade, fallen split bamboos, pools in rotten logs, palms). Brackish water; ---; 190     | Reid                              | 1949   |
|   | ---; enters houses; 146   | Soesilo                           | 1932 + |
|   | Nipa swamps, in jungle; ---; 190  | Boyd                              | 1949   |
| <i>Leucosphyrus</i><br><i>leucosphyrus</i><br>Dönnitz                   | ---; ---; 59, 70, 143, 144, 145, 146, 149, 190 (Shaded rock pools in beds of mountain streams, adults in jungles) | Russell<br>et al.                 | 1943   |
|   | ---; ---; 143, 146  | Colless                           | 1948   |
|   | ---; ---; 145*  | Russell                           | 1956   |
|   | ---; ---; 190*, 242*  | Geigy & Herbig                    | 1955   |
|   | Shaded rock pools and stream bed pools in the mountains; ---; 242   | Bohart                            | 1945   |
| <i>Leucosphyrus</i><br>var. <i>pugutensis</i><br>Colless                | ---; ---; 145°  | Reid                              | 1949   |
|   | ---; ---; 145, 149. Brackish water; ---; 190 (Small pools)  | Bonne-Wepster<br>& Swellen-grebel | 1953   |
| <i>Leucosphyrus</i><br>var. <i>riparis</i><br>King & Baisas             | ---; ---; 190 (Rock hole and pools in drying stream beds, between boulders at stream margins)                     | Bonne-Wepster<br>& Swellen-grebel | 1953   |
|   | Rock holes, pools left in stream beds or between boulders at the edge of the stream; ---; 242                     | King & Baisas                     | 1936   |
| <i>Leucosphyrus</i><br>var. <i>sulawesi</i><br>Waktoedi                 | ---; ---; 145   | Stone et al.                      | 1959   |
| <i>Lewisii</i><br>Ludlow  | ---; ---; 256   | Stone et al.                      | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                | DATE     |
|--|---|---------------------------------------|----------|
| <i>ANOPHELES lindesayi</i><br>Giles                  | Streams in hills; at 2,000-8,000 feet elevation,<br>enters houses, may bite man; 31, 143  | Christophers                          | 1916     |
|  | ---; restricted to high altitudes; 59   | Christophers                          | 1924     |
|  | Small pools, sandy pools or seepage, hill streams,<br>small clear pools in the rocky beds of mountain<br>torrents; thick forest or bamboo groves, at 2,000<br>feet elevation and above, naturally infected with<br><i>Plasmodium vivax</i> ; 76 | Chang                                 | 1939     |
|  | Pools, drains, streams in or along forest, jungle or<br>bamboo gardens; ---; 76   | Robertson                             | 1940     |
|  | Shady, swampy ground, seepage water; ---; 76  | Kan                                   | 1941     |
|  | Shady pool in bed of partly dried stream; ---; 76   | Hu                                    | 1937     |
|  | ---; naturally infected with malaria; 76  | Li & Wu                               | 1934 b + |
|  | ---; ---; 77  | Séguy                                 | 1924     |
|  | Garden pools and ditches; occasionally enters<br>houses; 143  | Christophers                          | 1933 +   |
|  | Ravine stream, tank, jungle pond; June; 143   | Senior-White                          | 1928     |
|  | Small pools; small grove, Jul.-Aug.; 143  | Shortt                                | 1924     |
|  | Rain pools; at 4,000 feet elevation and above; 143  | Iyengar                               | 1930 +   |
|  | Stream pools; bites man during the day; 143°  | Boyd                                  | 1949 +   |
|  | Clear, cool spring water; ---; 143, 158   | Lamborn                               | 1922     |
|  | Streams and swamps; ---; 143  | Strickland<br>& Choudhury             | 1927     |
|  | Shady rock pools; Aug.; 144   | Toumanoff                             | 1932 a   |
|  | ---; bites man in the evening; 158°   | Martini                               | 1930     |
|  | Ravines in jungle; ---; 190   | Hacker                                | 1923     |
|  | ---; ---; 218, 235  | Stone et al.                          | 1959     |
|  | ---; ---; 303   | Keshish'yan                           | 1941 +   |
| <i>lindesayi</i><br>var. <i>benguetensis</i><br>King | Irrigation ditches, rice fields; at 4,700 feet<br>elevation; 242  | Bohart                                | 1945     |
|  | Edges of shaded streams with vegetation; ---; 242   | King                                  | 1931     |
| <i>lindesayi</i><br><i>cameronensis</i><br>Edwards   | Pools and streams in jungle; rarely enters houses;<br>190   | Bonne-Wepster<br>& Swelien-<br>grebel | 1953     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|---|---|--|--|
| <i>ANOPHELES lindesayi japonicus</i><br>Yamada        | Clear pools of rocky stream beds; bites man in the evening; 76°, 77°<br><br>Cool water pools; at high altitudes; 76<br><br>---; rare, on high mountains, carrier of malaria; 76<br><br>---; bites man by day, enters houses; 76°<br><br>---; mountainous region; 77<br><br>Margins of slow moving streams, rain water pools, ditches, irrigation tanks; May-Oct.; 158<br><br>Cool spring water or shaded pools in the mountains; ---; 158°<br><br>Clear pools of rocky stream beds; bites man at night; 19°<br> | Russell et al.<br><br>Feng<br><br>Feng<br><br>Boyd<br><br>Koidzumi<br><br>La Casse & & Yamaguti<br><br>Hsiao & Bohart<br><br>Anonymous | 1943<br><br>1935<br><br>1937<br><br>1949<br><br>1927 +<br><br>1950<br><br>1946<br><br>1946 |
| <i>lindesayi</i><br><i>lindesayi</i><br>Giles         | Cool spring water or shaded pools at high altitudes; ---; 77<br><br>Clear pools in rocky bed of mountain streams; ---; 143°   | Chow<br><br>Russell et al.   | 1949 b<br><br>1943   |
| <i>lindesayi</i><br><i>nilgiricus</i><br>Christophers | Pools in rocky beds of mountain streams; bites man by day, at high altitudes; 143°<br><br>Pools, ditches; ---; 143<br><br>Hill streams, borrow pits; ---; 143   | Boyd<br><br>Russell et al.<br><br>Russell & Jacob  | 1949<br><br>1943<br><br>1942   |
| <i>lindesayi</i><br><i>pleceau</i><br>Koidzumi        | Clear mountain streams and seepage pools; at an elevation from 2,000 to 6,000 feet, experimentally infected with malaria, rare; 76<br><br>Pools in rocky beds of mountain streams; bites man by day, enters houses; 77°   | Crook<br><br>Boyd  | 1939<br><br>1949   |
| <i>listonii</i><br>Liston                             | ---; ---; 70<br><br>---; carrier of malaria; 77<br><br>Pits, holes with clear water and vegetation, cisterns with grassy margins, shores of brooks and rivers; dry season and at the end of rainy season, in houses, possible vector of malaria, May; 122°<br><br>Drains, hill streams; enters houses, carrier of malaria; 143<br><br>---; bites during the day; 143°   | Evans<br><br>Faust<br><br>de Mello & Bras de Sa<br><br>McCombie Young & Bailly<br><br>Perry  | 1930<br><br>1926 a<br><br>1935<br><br>1928<br><br>1914                                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|--|--|---|--|
| <i>Anopheles listonii</i><br>Liston<br>(cont.) | ---; Sept.-Nov.; 143<br>---; ---; 162 (In brooks, with clean water and grassy edges)<br>---; ---; 277  | Mayne<br>Martini<br>Barraud & Christophers  | 1928<br>1930<br>1931   |
| <i>litoralis</i><br>King                       | Brackish water in borrow pits, lagoons, salt marshes; dry season; 144<br>---; ---; 145 (Salt water fish ponds, salt beds. marshes, lagoons with algae, bites man)<br>In salt and brackish water, fish ponds, salt beds, marshes and stagnant pools; common; 242<br>Lagoons; ---; 242°  | Treillard<br>Bonne-Wepster & Swellengrebel<br>Russell & Baisas<br>Russell et al.  | 1934<br>1953<br>1935<br>1943   |
| <i>longirostris</i><br>Brug                    | ---; ---; 147 (Large swamps, seepage pools, wheel tracks, in or near jungle, in houses and bites man)  | Bonne-Wepster & Swellengrebel   | 1953   |
| <i>ludlowae</i><br>(Theobald)                  | Brackish water; enters houses, naturally infected with malaria; 11, 143. In brackish water; enters houses; 59, 70. ---; suspected malaria carrier; 145<br>---; chief carrier of malaria; 11. Salt swamps;<br>---; 242<br>Rice fields; Dec.-Apr.; 76<br>---; suspected vector of malaria; 76<br>River bed pools with sandy or stony bottoms without vegetation, exposed to direct sunlight, river and stream margins with vegetation, rice fields; ---; 77<br>---; malaria carrier; 77<br>---; ---; 77°, 242°<br>---; ---; 122<br>---; ---; 133<br>Brackish ponds and ditches; on banks of tidal channels, enters houses, naturally infected with malariae, experimentally infected with <i>Plasmodium malariae</i> and <i>P. falciparum</i> ; 143* | Christophers<br>Walker & Barber<br>Chow<br>Faust<br>Chow<br>Faust<br>Russell et al.<br>Bras De Sa<br>Stone et al.<br>Iyengar<br>Treillard | 1916<br>1914<br>1949 a +<br>1929 +<br>1949 b<br>1926 a<br>1943<br>1919<br>1959<br>1931 a<br>1934 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|--|--|---|--|
| <i>ANOPHELES ludlowae</i><br>(Theobald)<br>(cont.)           | Clear fresh water, running streams; indoors; 145*.<br>Clear fresh water, running streams, under rocks;<br>---; 147. Pools and stagnant water in river; ---;<br>242<br>---; ---; 146. Small open pools; ---; 190<br>---; ---; 146*<br>---; ---; 146°<br>---; naturally infected with <i>Wuchereria malayi</i> ; 149<br>---; March; 149<br>Pools and conduits in mangrove swamps; ---; 190<br>Brackish water in drains; ---; 190<br>---; carrier of malaria; 190<br>---; ---; 190*<br>Stagnant, open or shaded streams; Dec.-Feb.; 242<br>Sun exposed edges of large rivers, brackish ponds,<br>salt beds; ---; 242<br>Clear quiet water of streams; ---; 242<br>---; experimentally infected with malaria; 242<br>Small salt water marsh; Jul., Nov., in houses,<br>incriminated vector of malaria; 277°<br>Hill streams; carrier of malaria; 277<br>Brackish water; Dec.; 277<br>Salt water; ---; 280*<br>Fresh water; ---; 337<br>---; ---; 337*<br>---; ---; 349 | Bonne-Wepster<br>& Swellengrebel<br><br>Lamborn<br><br>Manson-Bahr<br><br>Kumm<br><br>Raghavan<br><br>Stanton<br><br>Williamson<br><br>Kingsbury<br><br>Watson<br><br>Watson<br><br>Russell & Baisas<br><br>Mieldazis<br><br>Bohart<br><br>Manalang<br><br>Barnes<br><br>Wilcocks<br><br>Barnes<br><br>Scharff<br><br>Gater<br><br>Flu<br><br>de Mello & Afonso | 1953<br><br>1922 a<br><br>1959<br><br>1929 +<br><br>1961<br><br>1915<br><br>1925 +<br><br>1933<br><br>1924<br><br>1923 +<br><br>1935<br><br>1930<br><br>1945<br><br>1928<br><br>1923<br><br>1944 b<br><br>1923 a<br><br>1927 +<br><br>1933 b<br><br>1926 +<br><br>1921 |
| <i>ludlowae</i><br>var. <i>flavescens</i><br>(Swellengrebel) | ---; ---; 146<br>---; ---; 337   | Stone et al.<br>Gaschen   | 1959<br>1935 b   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>ANOPHELES ludlowae</i><br>var. <i>torakala</i><br>Stoker &<br>Waktoedi | Stagnant or slow running water in river beds; ---; 145   | Stoker &<br>Koes.  | 1949   |
| <i>ludlowi</i><br><i>sundaicus</i><br>Rodenwaldt                          | ---; ---; 11*, 144*, 190*, 277*, 337*<br>---; ---; 139<br>Ditches and ponds; ---; 143<br>---; intermediate host of <i>Wuchereria bancrofti</i> ; 143<br>---; naturally infected with malariae; 143<br>---; experimentally infected with <i>W. bancrofti</i> ; 143<br>---; ---; 143*<br>---; in houses; 144°<br>---; ---; 149   | Treillard<br>Toumanoff<br>Iyengar<br>Basu &<br>Sundar Rao<br>Iyengar<br>Raghavan<br>Manson-<br>Bahr<br>Toumanoff<br>Boumeester | 1934<br>1934<br>1931 a<br>1939<br>1931 b<br>1961<br>1959<br>1935 a<br>1934<br>1916 b |
| <i>lukisii</i><br>Christophers  | ---; bites man at night, palm grove, April; 151°   | Christophers   | 1916 b   |
| <i>maculatus</i><br>Theobald  | Streams and river beds near hills; experimentally<br>and naturally infected with malaria; 31, 70, 143<br>Shell craters; Jan.-Oct.; 59<br>Grassy edges of streams and drains in mountain<br>valleys and foothills, unshaded pools in rocky<br>streams and in seepages; ---; 59*<br>Rice fields, shell craters, streams; enters<br>houses, Jan.-March, June, Oct.; 59<br>---; naturally infected with malaria; 59, 337°.<br>---; ---; 70, 76, 77, 139, 145, 146, 149, 277<br>(Streams and river beds, pools, springs, seepages,<br>borrow pits, lake margins, rice fields in hilly<br>country, in houses, bites man)<br>Spring-well, paddy field, shallow-banked ravine,<br>spring-fed pools, swampy area; carrier of malaria;<br>70<br>Ravine stream, spring pool, drain, rock pool and<br>irrigation channel; Apr.-Aug.; 70<br>---; ---; 70, 143 (Clear water exposed to sunlight,<br>seepages). ---; malaria carrier; 146 | Christophers<br>Macan<br>Wilcocks<br>Macan<br>Bonne-Wepster<br>& Swellen-<br>gobel   | 1948<br>1944<br>1948<br>1953<br>1920 a<br>1928<br>1954                               |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR         | DATE     |
|---|--|----------------|----------|
| <i>Anopheles maculatus</i><br>Theobald<br>(cont.) | Pools in rocky streams, river and torrent beds, seepages, springs, streams with grassy edges, flowing drains and drainage channels; naturally infected with malaria; 76* | Robertson      | 1940     |
|   | Streams, river beds, seepages, lake margins; low lying plains, enters houses; 76   | Chang          | 1940     |
|   | Sandy and stony stream beds; all year; 76°   | Chow & Balfour | 1949     |
|   | Small sandy pool, seepages, abandoned rice field with vegetation; ---; 76  | Kan            | 1941     |
|   | Grassy river margins, irrigation ditches; ---; 76. ---; naturally infected with <i>Wuchereria bancrofti</i> , probable vector of filariasis, Oct.-Dec.; 139              | Hsiao          | 1945     |
|   | ---; carrier of malaria; 76, 77, 144   | Faust          | 1926 a   |
|   | River beds with sandy or stony bottom without vegetation, in streams of hilly regions, along river margins with or without vegetation; common; 77                        | Chow           | 1949 b   |
|   | ---; ---; 122  | de Mello       | 1934     |
|   | Fresh stagnant or polluted water in seepages, borrow pits, lake margins, wells, reservoirs; enters houses; 133   | Farner et al.  | 1946 +   |
|   | Streams with grassy edges and irrigation ditches with cool running water; ---; 133. ---; carrier of malaria; 190   | Feng           | 1935     |
|   | ---; naturally infected with malaria; 133. ---; naturally and experimentally infected with malaria, all year; 139  | Feng           | 1937     |
|   | Hill streams, ditches, seepages; enters houses, important carrier of malaria; 139°   | Jackson        | 1938 a   |
|   | Shallow seepages exposed to the sun and in small backwaters of hillside streams, artificial container; ---; 139. Artificial containers; ---; 145                         | Colless        | 1948     |
|   | ---; experimentally infected with malaria; 139   | Jackson        | 1936     |
|   | ---; experimentally infected with <i>W. bancrofti</i> ; 139  | Jackson        | 1938 c + |
|   | ---; ---; 139*, 337*. Sunny foothill streams, springs and seepages; ---; 190*  | Russell        | 1956     |
|   | Beds of streams, pools, rice fields; May-Dec., enters houses, bites at night; 143°   | Shortt         | 1924     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|---|--|------------------------|--------|
| <i>Anopheles maculatus</i><br>Theobald<br>(cont.) | Artificial containers, borrow pits, cart-tracks, ditches, field and irrigation channels, swamps, hill streams, river edges, spring pools, tanks and wells; ---; 143  | Russell & Jacob        | 1942   |
|   | Open drains with fresh flowing water and vegetation; ---; 143  | Iyengar                | 1929   |
|   | Streams in open area outside the jungle; ---; 143*   | Iyengar                | 1930 b |
|   | Ponds; ---; 143. Dying rivers and temporary pools; ---; 235  | Strickland & Chowdhury | 1927   |
|   | ---; carrier of malaria, Jan.-Feb.; 143  | Watson                 | 1924   |
|   | Sunny clear water rock pools with abundant vegetation; all year; 144*  | Borel                  | 1930 a |
|   | Hollow rocks in low water course; high altitudes; 144  | Gaschen                | 1935 a |
|   | Rock pools, shallow flowing streams with vegetation and sandy or rocky beds; ---; 144  | Toumanoff              | 1932   |
|   | In swampy area; ---; 144   | Borel                  | 1926 b |
|   | ---; near railroad station, carrier of malaria; 144  | Borel                  | 1928   |
|   | ---; experimentally infected with <i>W. malayi</i> ; 144   | Gaillard               | 1938 + |
|   | ---; naturally infected with malaria; 144  | Raynal & Gaschen       | 1935   |
|   | ---; enters houses at night; 144°. ---; naturally infected with malaria; 145, 149. ---; enters houses, naturally infected with malaria; 146. ---; ---; 147. Rice fields; cleared hill areas; 190. ---; naturally infected with malaria, suspected vector of malaria; 242°. ---; rare; 277. ---; enters houses; 337 ° | Covell                 | 1944   |
|   | Hill streams and clear pools; ---; 145   | Roper                  | 1914   |
|   | Fish pond; ---; 145, 146, 149  | Brug                   | 1931 a |
|   | ---; naturally infected with <i>W. bancrofti</i> ; 145*  | Manson-Bahr            | 1959   |
|   | ---; Apr.-May; 149   | Stanton                | 1915   |
|   | ---; ---; 158  | Yamada                 | 1925 + |
|   | ---; at 4,500 feet elevation; 174  | Christophers           | 1920   |
|   | Rubber plantations, exposed streams and seepages to sunlight; enters houses, prefer to bite in the open; 190 °   | Wharton                | 1953   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|---|--|------------------------|--------|
| <i>Anopheles maculatus</i><br>Theobald<br>(cont.) | Rainwater in tanks; in mail-trains, experimentally infected with <i>Plasmodium falciparum</i> , <i>P. vivax</i> , <i>P. malariae</i> , naturally infected with <i>malariae</i> ; 190 | Kingsbury              | 1930   |
|   | Rapid streams, small open pools, grassy drains; ---; 190   | Lamborn                | 1922 a |
|   | Edge of swampy ravines, springs; ---; 190  | Christophers & Harvey  | 1923   |
|   | Jungle pools at the edge of running streams; ---; 190. Streams formed by the overflow of wells; ---; 280   | Smart                  | 1914   |
|   | ---; enters houses at night, leaves at dawn; 190*  | Wharton & Reid         | 1950   |
|   | ---; bites at night; 190*  | Wharton                | 1952   |
|   | ---; carrier of malaria; 190   | Ramsay                 | 1930 a |
|   | ---; all year; 190   | Hodgkin et al.         | 1935   |
|   | ---; ---; 218 , 235  | Kumm                   | 1929 + |
|   | Seepage water along streams, rice fields, along lake margins; naturally and experimentally infected with malaria; 242  | Bohart                 | 1945   |
|   | Along banks and densely shaded brooks; common during cool season; 242*   | Walker & Barber        | 1914   |
|   | Lowlands to mountains and among algae of shaded forest streams; carrier of malaria; 242  | Russell & Baisas       | 1935   |
|   | Mountain streams exposed to sunlight, pools in stream beds, sun exposed ditches of clear seepage water; ---; 242   | Mieldazis              | 1930   |
|   | ---; at an altitude of 5000 feet; 242  | Cook                   | 1954   |
|   | ---; ---; 242*   | Russell                | 1934   |
|   | Pools without vegetation, fallow rice fields with running water; ---; 277  | Barraud & Christophers | 1931   |
|   | ---; 2,500 feet elevation, enters houses; 277*   | Barnes                 | 1923   |
|   | Clear mountain streams; ---; 277*  | Wilcocks               | 1944 b |
|   | ---; May; 277  | Barnes                 | 1923 a |
|   | Fresh spring water; ---; 280*  | Scharff                | 1927 + |
|   | Streams open to the sun; ---; 337  | Wilcocks               | 1944 d |
|   | ---; ---; 349  | de Mello & Afonso      | 1921   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                              | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--------------------------------------|---|--------------------------------|--------|
| <i>ANOPHELES maculatus</i>           | Rocky pools, water springs in shade; ---; 143   | Puri                           | 1928   |
| var. <i>dravidicus</i>               | ---; ---; 144   | Borel                          | 1930 a |
| Christophers                         | ---; ---; 190   | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>maculatus</i>                     | ---; naturally infected with malaria; 59, 143.  | Russell et al.                 | 1943   |
| <i>maculatus</i>                     | ---; ---; 190*  |                                |        |
| Theobald                             | ---; ---; 59, 70, 76, 77, 133, 139, 143, 144, 149, 190, 242, 277 (Small hilly streams, pools connected with streams and river beds, feeds on man, probably enters houses) | Hsiao                          | 1945   |
|                                      | ---; ---; 76°, 144°, 158*   | Geigy & Herbig                 | 1955   |
|                                      | Hilly streams, pools, streams, and river beds; naturally infected with malaria; 139°  | Feng                           | 1938   |
| <i>maculatus willmori</i><br>(James) | ---; ---; 59, 143 (Bed pools and mountain streams and torrents)   | Russell et al.                 | 1943   |
|                                      | Cleared ravines; in mountains and higher foothills; 143, 235*   | Iyengar                        | 1930 + |
|                                      | Spring puddles; ---; 143  | James & Liston                 | 1904 + |
|                                      | ---; malaria carrier; 143   | Viswanathan et al.             | 1941   |
|                                      | ---; ---; 218, 235  | Stone et al.                   | 1959   |
|                                      | ---; May; 277   | Barnes                         | 1923 a |
| <i>maculipalpis</i><br>Giles         | Pools in connection with hill streams; in houses, naturally and experimentally infected with malaria; 31, 143, 235  | Christophers                   | 1916   |
|                                      | ---; ---; 59  | Lalor                          | 1913   |
|                                      | ---; ---; 70  | Senior-White                   | 1925   |
|                                      | ---; probable vector of malaria; 76   | Faust                          | 1929 + |
|                                      | ---; enters houses, Jul.-Aug.; 76   | Chung & Lin                    | 1931   |
|                                      | ---; ---; 77  | Faust                          | 1926 a |
|                                      | ---; ---; 122   | James & Liston                 | 1904 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)              | AUTHOR                  | DATE   |
|--|--|-------------------------|--------|
| <i>AEGOLOPHUS</i><br><i>maculipalpis</i><br>Giles<br>(cont.) | ---; ---; 139  | Riley                   | 1932   |
|  | Running water, seepage water, swamp and tanks; in houses; 143                        | McCombie Young & Bailly | 1928   |
|  | Rain-water pools, paddy fields; common, March; 143                                   | Young & Majid           | 1929   |
|  | Seepage water; foothills and dry regions; 143  | Iyengar                 | 1930 + |
|  | Stream; carrier of malaria, Oct.; 143  | Perry                   | 1914   |
|  | ---; open area outside the jungle; 143*  | Iyengar                 | 1930 b |
|  | ---; Aug.-Sept.; 143   | Strickland & Chowdhury  | 1930   |
|  | ---; in houses; 144  | Toumanoff               | 1935 a |
|  | ---; -- ; 144*   | Toumanoff               | 1932 b |
|  | ---; June-Sept., rare; 235   | Sinton                  | 1917   |
|  | ---; May, in houses, bites at night; 277°  | Barnes                  | 1923   |
| <i>maculipalpis</i><br>var. <i>indiensis</i><br>Theobald     | Streams, pools of irrigation ditches, mud puddles; ---; 76*                          | Li & Wu                 | 1934 + |
|  | ---; ---; 143  | Iyengar                 | 1928   |
|  | ---; ---; 144  | Lefebvre                | 1938   |
|  | ---; at 2,500 feet elevation, bites man in the evening; 277°                         | Barraud & Christophers  | 1931   |
| <i>maculipalpis</i><br>var. <i>splendidus</i><br>Koidzumi    | ---; experimentally infected with malaria; 77  | Anazawa                 | 1931   |
| <i>maculipennis</i><br>Meigen                                | Artificial containers, pools, rice fields, river beds with large reeds; ---; 28      | Danilova & Mirzayan     | 1936   |
|  | ---; ---; 31   | Wu                      | 1940   |
|  | Springs, swamps, river valleys, irrigation channels, marshes, pools; ---; 35*        | Bogojawlenski           | 1933 + |
|  | Rice fields, flooded lowlands, canal pools, rain puddles, drainage, ditches; ---; 35 | Voskressenskii & Brenn  | 1928 + |
|  | Salt water puddles on shore; ---; 35   | Shirinov                | 1937   |
|  | ---; common, April-June, in houses; 35   | Kalandadze & Kaviladze  |        |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|---|---|---|--|
| <i>ANOPHELES</i><br><i>maculipennis</i><br>Meigen<br>(cor.) | ---; carrier of malaria; 35, 303<br>---; ---; 35*, 150*, 151*<br>Lakes, pools; enters houses; 60<br>Fits in low-lying swamps with vegetation; ---; 60<br>Ditches with fresh water; enters houses; 76<br>---; malaria carrier; 76, 77<br>Springs and swampy meadows; ---; 118<br>Tree holes; ---; 118°<br>Artificial containers; ---; 118<br>Swamps; ---; 118<br>---; enters houses, March-Nov.; 118<br>---; mountains and coastal areas; 118<br>---; ---; 143<br>Small pools; ---; 144<br>Swamps, rivers with vegetation; March-Oct.; 150, 151<br>Mountain streams, irrigation ditches; ---; 150<br>Pools in bed of irrigation channel; ---; 150.<br>Pools in small streams; enters houses; 151<br>Rice fields; ---; 150°<br>Puddles, pits; ---; 150<br>Fresh and brackish water, flood pools; in houses,<br>Apr.-Sept.; 154*, 159*, 302*, 317*<br>Swampy ground pools, May-June; ---; 159. ---;<br>tents; 302°. Marsh; ---; 342<br>---; enters houses; 161<br>Ponds, lakes, flooded meadows, springs; desert and<br>foothills; ---; 162<br>---; experimentally infected with tularemia; 162<br>---; ---; 162, 256°, 342 (Bite at night, indoors<br>and outdoors) | Roy & Brown<br>Russel<br>Sergeeva<br>Sergeeva<br>Peng<br>Faust<br>Nikiforova<br>Krivenko<br>Kalandadze<br>& Tairova<br>Roukhadze<br>Roukhadze<br>Ustinov<br>Senior-White<br>Toumanoff<br>Macan<br>Zolotarev<br>Christophers<br>& Shortt<br>Gutzevich<br>Beklemishev<br>& Gontaeva<br>Barraud<br>Austen<br>Olenev<br>Balkoshina<br>Fedorov &<br>Sivolobov<br>Martini | 1954<br>1956<br>1939<br>1940<br>1938 +<br>1926 a<br>1941<br>1940<br>1939<br>1926 b<br>1925 a<br>1941<br>1934<br>1932<br>1950 +<br>1945<br>1921 b<br>1943<br>1943 +<br>1921 +<br>1919<br>1936<br>1939<br>1935<br>1930 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                   | AUTHOR                    | DATE     |
|--|---|---------------------------|----------|
| <i>Anopheles maculipennis</i><br>Meigen<br>(cont.) | Rice fields, tree holes; enters houses; 166   | Luppova                   | 1940     |
|  | Brackish and mineralized water; ---; 166  | Petrishcheva              | 1940 a   |
|  | Fresh water ditches; enters houses; 194   | Feng & Chin               | 1937     |
|  | ---; enters houses; 207   | Lepsi                     | 1935     |
|  | ---; ---; 209, 256 (Reservoirs, marsh, bites man)   | Shtakelberg               | 1937     |
|  | Artificial containers; enters houses, Apr.-Sept.; 256 (Bites man, main vector of malaria) | Pletnjow                  | 1928     |
|  | Rice fields, irrigation ditches; ---; 256   | Zvyagintzev               | 1939     |
|  | Drainage ditches in marshy areas; ---; 256  | Lazuk & Utenkov           | 1939     |
|  | Clear stagnant water with vegetation; ---; 256  | Beklemishev et al.        | 1931     |
|  | River and its tributaries; ---; 256   | St. Hilaire               | 1925     |
|  | Calm water with direct sunlight; ---; 256   | Beklemishev & Mitrofanova | 1926     |
|  | Pools and ditches; ---; 256   | Apriamov                  | 1930     |
|  | Swamps; ---; 256  | Shipova                   | 1936     |
|  | Muddy ponds; ---; 256   | Lomeiko                   | 1942     |
|  | ---; readily bites man during the day; 256°   | Shakhmatov                | 1926 +   |
|  | ---; ---; 294   | Feng                      | 1935     |
|  | ---; ---; 303*  | Latuishev                 | 1929 +   |
|  | Irrigation channels; ---; 317   | Martini                   | 1927 +   |
|  | Rice fields; ---; 317   | Martini                   | 1928 a   |
|  | ---; trains, July and August; 317   | Arar & Atamanoglu         | 1938     |
|  | ---; malaria carrier; 317   | Anonymous                 | 1944     |
|  | River banks, shallow irrigation overflows in gorges, caves, burrows; Jan.-Dec.; 318       | Petrishcheva              | 1934 a + |
|  | Marshes; ---; 318   | Orlows & Schalhow         | 1930 +   |
|  | Running water in ravines from springs, ponds, lakes, rivers with vegetation; ---; 321     | Shlyapine                 | 1933 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                      | DATE   |
|--|---|-----------------------------|--------|
| <i>ANOPHELES maculipennis</i><br>Meigen<br>(cont.)   | Artificial containers, swamps; ---; 321   | Dolbeshkin                  | 1928 + |
|  | Rice fields; ---; 321*  | Goritzkaya                  | 1938   |
|  | ---; ---; 321*  | Rybinsky                    | 1933   |
|  | ---; enters houses; 321   | Val'kh                      | 1938 + |
|  | Running water, flooded fields with high salt content; enters houses; 326  | Brodski                     | 1923   |
|  | ---; possible carrier of malaria; 342   | Manson-Bahr                 | 1920   |
|  | ---; ---; 342 (Sunny areas, standing, shady and clean waters, algae pools, small ponds, dams, ditches, moors, cisterns, nocturnal, bites man in and out doors, important vector of malaria) | Peus                        | 1942   |
|  | Reservoirs; ---; 345  | Dmitriev & Artem'ev         | 1932   |
| <i>maculipennis alexandrae</i><br>Schingarew         | ---; ---; 162, 256  | Martini                     | 1930   |
| <i>maculipennis atroparvus</i><br>van Thiel          | Pools, stagnant water, small pits, ruts and hoof prints in sunlight, swamps, spring-fed pools; ---; 28  | Shipitzina                  | 1941   |
|  | ---; ---; 60, 345   | Beklemishev & Zhelokhovtzev | 1937 + |
|  | Ponds, ditches, marshes; carrier of malaria; 194, 210   | Feng                        | 1937   |
|  | Brackish water with organic and mineral matter; ---; 256  | Kalita                      | 1937   |
|  | ---; enters houses; 256°  | Danilova & Lappin           | 1937   |
|  | Brackish water, rice fields; ---; 321   | Prendel                     | 1941   |
|  | ---; potential vector of malaria, June-July, Sept.; 321   | Prendel & Somov             | 1938   |
|  | ---; enters houses; 321   | Yarovaya                    | 1941   |
|  | ---; ---; 345   | Senevet & Andarelli         | 1956   |
| <i>maculipennis</i><br><i>maculipennis</i><br>Meigen | ---; ---; 35, 150, 317  | Senevet & Andarelli         | 1956   |
|  | Fresh water in hilly sections; abundant; 256  | Russell et al.              | 1943   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|---------------------|---|--------------------------------|--------|
|                     |   |                                |        |
| <i>ANOPHELES</i>    | ---   |                                |        |
| <i>maculipennis</i> | ---; rare; 317  | Arar &<br>Atamanoglu           | 1938   |
| <i>melanon</i>      |   |                                |        |
| Hackett             | ---; ---; 321   | Gendel'man<br>& Markova        | 1940   |
|                     | ---; ---; 345   | Stone et al.                   | 1959   |
| <i>maculipennis</i> | ---; ---; 118   | Kalandadze<br>& Sagatelova     | 1938   |
| <i>messeae</i>      |   |                                |        |
| Falleroni           | Streams, stagnant pools and lakes with vegetation,<br>irrigation ditches, ponds and borrow pits; enters<br>houses, Apr.-Aug.; 162 | Ivanov                         | 1944   |
|                     | ---; enters houses; 166*  | Naumov                         | 1944   |
|                     | Ponds, stream beds, borrow pits, swamps near<br>springs, rivers; enters houses; 256 (Bites man)                                   | Gutzevich                      | 1939   |
|                     | River banks; ---; 256   | Vlasenko                       | 1936   |
|                     | Reservoirs with vegetation; ---; 256  | Zavoiskayo                     | 1942   |
|                     | Rice fields, flooded irrigation ditches; ---; 256   | Zvyagentzov                    | 1939   |
|                     | Water with high organic and mineral content; ---; 256   | Kalita                         | 1937   |
|                     | ---; marshy plains; 256   | Danilova &<br>Buduimko         | 1938   |
|                     | ---; abundant; 256  | Pokrovskii                     | 1935   |
|                     | ---; abundant; 317  | Arar &<br>Atamanoglu           | 1938   |
|                     | Fresh standing water, forest steppe; ---; 321   | Prendel                        | 1941   |
|                     | Flooded meadows; ---; 321   | Yatzenko &<br>L'ovich          | 1936   |
|                     | ---; enters houses; 321   | Tishchenko                     | 1938   |
|                     | ---; ---; 321*  | Reingard &<br>Goritzkaya       | 1939   |
|                     | ---; ---; 345   | Bkelemishev &<br>Zhelokhovtzev | 1937 + |
| <i>maculipennis</i> | ---; ---; 3   | Lindberg                       | 1949 + |
| <i>sacharovi</i>    | Saline water; steppe zone; 150  | Zolotarev                      | 1945   |
| Favre               | ---; ---; 150*  | Ziony                          | 1950 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>ANOPHELES maculipennis sccharovi</i><br>Favre<br>(cont.) | ---; ---; 162, 256, 294, 318, 342, 345 (Reservoirs with vegetation, deserts)<br><br>Streams with algae, irrigation ditches, springs, mountain streams, depressions in sandy river, flooded meadows, small pools; rarely enters houses; 166<br><br>---; ---; 303*<br><br>Rivers, springs, drainage and irrigation ditches, rice fields, small ponds, warm shallow creeks with vegetation; Aug., Sept.; 326<br><br>Swamps; ---; 326*<br><br>---; enters houses; 326°       | Monchadskii<br>Petrishcheva & Polyakov<br><br>Keshish'yan<br><br>Ulitzheva<br><br>Prokopenko<br><br>Suirevich-Boronenkova & Zakhaiyantz | 1936<br>1940<br>1941 +<br>1943<br>1945<br>1946         |
| <i>maculipennis subalpinus</i><br>Hackett & Lewis           | Stagnant pools, stream beds, wells, reservoirs with algae, stagnant swamps; enters houses; 342*  | Jerusalem   | 1941 +   |
| <i>majidi</i><br>Young & Majid                              | Stagnant pools with vegetation, pits, ruts, hoof prints in sunlight; daytime shelters on river valley slopes near swamps and pools, active at night; 28, 256<br><br>Rivers with vegetation; plains; 35<br><br>---; ---; 118<br><br>Rice fields; ---; 150<br><br>---; ---; 150*   | Shipitzina<br><br>Ivanova & Polovodova<br><br>Kalita<br><br>Zolotarev<br><br>Gutzevich  | 1941<br>1942<br>1939 +<br>1945<br>1948 +               |
| <i>mangyanus</i><br>(Banks)                                 | Fallow and growing rice fields, field channels, hill streams, tanks and wells; in houses; 143<br><br>Open drains with flowing water and vegetation, paddy plots, grassy streams; ---; 143<br><br>Streams in open area outside the jungle; ---; 143<br><br>---; common, March; 143<br><br>---; ---; 218<br><br>---; ---; 366<br><br>Shallow, clear, slow-flowing streams with sandy or rocky beds, edges of stream, irrigation channels; suspected vector of malaria; 242 | Russell & Jacob<br><br>Iyengar<br><br>Iyengar<br><br>Young & Majid<br><br>Stone et al.<br><br>Roy & Brown<br><br>Covell                 | 1942<br>1929<br>1930 b<br>1929<br>1959<br>1954<br>1944 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR         | DATE   |
|---|--|----------------|--------|
| <i>Anopheles mangystauensis</i><br>(Banks)<br>(cont.) | —; naturally infected with <i>Plasmodium falciparum</i> ; 242*   | Dy & Gapuz     | 1948   |
|   | —; at an altitude not exceeding 2000 feet; 242   | Cook           | 1954   |
| <i>marteri</i><br>Senevet &<br>Prunelle               | Artificial containers, water holes, rarely in swamps and ground pools, tree holes; —; 150, 151, 159, 302, 303, 342 | Logan et al.   | 1953 + |
|   | Streams, springs; —; 150   | Macan          | 1950 + |
|   | —; —; 154  | Stone et al.   | 1959   |
|   | Running water in tunnels, gorge pools, mountain streams; —; 302  | Leeson         | 1950 + |
|   | Deeply shaded rocky pools in mountain streams; —; 302  | Russell et al. | 1943   |
| <i>marteri sogdiarus</i><br>Keshishian                | —; —; 150, 303   | Stone et al.   | 1959   |
|   | Hill streams; —; 345   | Macan          | 1942 + |
| <i>martinius</i><br>Schingarew                        | —; —; 162, 326   | Martini        | 1930   |
|   | —; —; 256  | Enikolopov     | 1930   |
| <i>mastersi</i><br>Skuse                              | —; —; 76   | Faust          | 1926   |
|   | —; —; 143, 144   | Faust          | 1926 a |
| <i>mauritius</i><br>Graudpré &<br>Charmoy             | —; —; 146  | Swellen-grebel | 1920 + |
|   | Shallow brackish marsh; May; 154   | Barraud        | 1921   |
|   | Reservoirs, ponds; —; 154  | Shtakelberg    | 1937   |
|   | —; rare; 154°  | Buxton         | 1924 a |
|   | Large pools and edges of large bodies of water; —; 302   | Macan          | 1942   |
|   | Stagnant pools with vegetation; July, Aug., Sept.; 342   | Saliternik     | 1933   |
| <i>mauritianus tenebrosus</i><br>Donitz               | —; —; 154, 233   | Stone et al.   | 1959   |
| <i>messeae</i><br>Palleroni                           | —; —; 76*  | Hsiao          | 1945   |
|   | —; —; 194  | Hsiao          | 1946   |
|   | Cool, stagnant water; in houses during winter months; 256  | Russell et al. | 1943   |
|   | —; —; 294*   | Russell        | 1956   |
|   | —; —; 317  | Anonymous      | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                              | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--------------------------------------|---|--------------------------------|--------|
| <i>ANOPHELES minimus</i><br>Theobald | River edges with vegetation, seepage, artificial containers; Jan.-Mar., May, Aug.-Dec., active by day and night, rests indoors at night; 59*  | Macan                          | 1948   |
|                                      | Shaded water of the grassy edges of streams and drains; ---; 59   | Wilcocks                       | 1944   |
|                                      | ---; enters houses; 59*   | Macan                          | 1950 a |
|                                      | ---; carrier of malaria; 59, 76, 77, 143, 277   | Roy & Brown                    | 1954   |
|                                      | Streams in cleared jungles, swamp margins, irrigation channels, drains, rice fields, clear water in borrow pits; ---; 70  | Farner et al.                  | 1946 + |
|                                      | Ditches, irrigation channels and fast moving streams; in houses, naturally infected with malaria, Aug.-Nov.; 76*  | Sweet et al.                   | 1942   |
|                                      | Hill streams, pools, springs, ditches and rice paddies, excavations, foothills; in houses, carrier of malaria; 76   | Chang                          | 1939   |
|                                      | ---; foothills; 76*. ---; ---; 77*, 139*, 143*, 144*, 168*, 185*, 235*, 277*. Small streams; ---; 242*  | Russell                        | 1956   |
|                                      | Irrigation channels; houses; 76   | Chow & Balfour                 | 1949   |
|                                      | Hilly streams, seepage from hill; naturally infected with malaria, all year; 76, 133, 139   | Feng                           | 1937   |
|                                      | Streams with grassy edge and irrigation ditches with cool running water; ---; 76*. Streams with grassy edge and irrigation ditches with cool running water; important malaria carrier; 133. ---; naturally infected with malaria; 139 | Feng                           | 1935   |
|                                      | River margins, canals, flowing drains; bites at night; 76*  | Hsiao                          | 1945   |
|                                      | Cool, slowly running hilly streams and ditches with grassy edge, pools, with rain water and sandy bottom; naturally infected with both sporozoite and oocysts, also infected with <i>Wuchereria bancrofti</i> ; 76                    | Feng                           | 1938   |
|                                      | Irrigation canals, wooded hills and marshy valleys, permanent streams; infected with malaria; 76. ---; naturally infected with sporozoites; 143. ---; infected with sporozoites, indoors; 144*  | Bonne-Wepster & Swellen-grebel | 1953   |
|                                      | Seepage from springs, rice field, swamps; low-lying plains, bites at night; 76*   | Chang                          | 1940   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                | DATE   |
|--|--|-----------------------|--------|
| <i>Anopheles minimus</i><br>Theobald (cont.) | ---; possible vector of malaria; 76, 77, 242   | Feng                  | 1932   |
|  | ---; up to altitudes of 1700 meters; 76, 144<br>(Bites at night)   | Gaschen               | 1935 a |
|  | Rock pools, holes, pools, rice fields; common, possible vector of malaria; 77  | Chow                  | 1949 b |
|  | ---; rare, found at the end of rain season; 122  | de Mello & Bras de Sa | 1935   |
|  | Irrigation ditches, pools fed by seepage, rice fields; important carrier of malaria, naturally and experimentally infected with filaria of <i>Wuchereria bancrofti</i> ; 139 | Jackson               | 1938   |
|  | ---; bamboo huts; 139°   | Jackson               | 1938 a |
|  | ---; ---; 139*, 144*   | Manson-Bahr           | 1959   |
|  | ---; naturally infected and natural vector of <i>W. bancrofti</i> ; 139  | Raghavan              | 1961   |
|  | Permanent pools, abandoned tanks, seepage water; adults in houses at night, all year, naturally infected with malaria; 143   | Ramsay                | 1930   |
|  | In streams and ponds; common in houses; 143.<br>---; naturally and experimentally infected with malaria; 242   | Christophers          | 1916   |
|  | Edges of swamps, paddy fields, spring seepages, clean, shady grassy streams and drains, rivers;<br>---; 143  | Christophers          | 1933 + |
|  | Open drains with vegetation; ---; 143  | Iyengar               | 1929   |
|  | Streams in open area outside the jungle; ---; 143  | Iyengar               | 1930 b |
|  | ---; in houses by day; 143, 144  | Wharton               | 1953   |
|  | Small river, reedy lakes near habitations; nocturnal; 144  | Borel                 | 1928   |
|  | Swamps; ---; 144   | Borel                 | 1930 a |
|  | Streams; carrier of filariasis; 144°   | Wilcocks              | 1944 c |
|  | ---; all year, in houses, naturally infected with malaria; 144°  | Raynal & Gaschen      | 1935   |
|  | ---; at the beginning of the rainy season rare, naturally infected with malaria; 144   | Toumanoff & Canet     | 1940   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>ANOPHELES</i><br><i>minimus</i><br>Theobald<br>(cont.) | ---; Oct.-Feb.; 144<br>Unshaded water; ---; 145<br>Flowing or standing water, springs with vegetation, irrigation canals, ponds, rice fields, clean, clear, cool, slightly shaded or in sun; ---; 146. Rice fields, sunny or shaded, flowing or standing water; ---; 147*<br>---; ---; 146<br>---; ---; 149, 277, 366*. ---; enters houses; 139.<br>---; bites after midnight; 143°. ---; up to 4,900 feet; 144. ---; suspected carrier of malaria; 145 (Clear unpolluted slowly moving water with grassy edges, seepage outcrops, borrow pits, tanks, rice fields, irrigation channels, shallow earth wells, prefers partial shade, dangerous malaria carrier, bites man)<br>---; ---; 151<br>---; ---; 158*<br>Irrigation ditches; active in the evening, natural vector of malaria, Sept.-Oct.; 242*<br>Flowing shaded streams, stagnant pools; ---; 242<br>---; in houses at daytime, banks of streams, Oct.-Dec.; 242<br>---; enters houses at night; 242°<br>---; ---; 257<br>Clear mountain streams; ---; 277<br>---; enters houses; 277°<br>---; rare; 277<br>Grassy streams; ---; 337 | Toumanoff<br>Soesilo<br>Farner<br>Iyengar<br>Covell<br>Senior-White<br>Geigy & Herbig<br>Manalang<br>Mieldazis<br>Russell<br>Hu<br>Stone et al.<br>Wilcocks<br>Barnes<br>Causey<br>Wilcocks<br>Christophers<br>Senior-White<br>Hacker<br>Wharton | 1932 b<br>1932 +<br>1943 +<br>1924<br>1944<br>1948<br>1955<br>1928<br>1930<br>1931<br>1935 b<br>1959<br>1944 b<br>1923<br>1937<br>1944 d<br>1916<br>1920 a<br>1923<br>1953 |
| <i>minimus</i><br><i>aconitus</i><br>Donitz               | ---; ---; 59, 143<br>---; ---; 70, 337<br>Swamps; ---; 190   |  |  |
| <i>minimus</i><br><i>flavirostris</i><br>(Ludlow)         | ---; ---; 139, 143, 190, 337   | Wharton  | 1953   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>Anopheles minimus</i><br><i>flavirostris</i><br>(Ludlow)<br>(cont.) | ---; naturally infected with malaria; 145. Rice fields; rarely in houses, naturally infected with malaria; 146, 242° (Clear, shaded streams, round roots of bamboo, rivers, flowing or stagnant irrigation channels, pools and wells, enters houses at night to attack man) | Covell                         | 1944   |
|  | ---; possible vector of malaria; 145  | McArthur                       | 1950 + |
|  | Unshaded brooks and irrigation ditches; naturally infected with malaria; 146. Foot hills, streams, edges of rivers, canals, irrigation ditches, wells; ---; 242   | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Stream with warm brackish water, rice fields; enter houses at night; 242°   | Ejercito et al.                | 1954   |
|  | Foothill, shaded edges of rivers and streams; enter houses at night; 242*   | Cook                           | 1954   |
|  | Occasionally in sunlit muddy water; bites man at night indoors and out, common; 242°  | Simmons                        | 1942 + |
|  | ---; carabao-baited trap, naturally infected with filaria larvae; 242**   | Rozeboom & Cabrera             | 1964   |
|  | ---; human-baited trap at night, all year; 242  | Urbino                         | 1937   |
|  | ---; naturally infected with oocysts and sporozoites; 242   | Dy & Capuz                     | 1948   |
|  | ---; carrier of malaria; 242  | Roy & Brown                    | 1954   |
|  | Slow running water with or without vegetation, rice fields, irrigation channels, brooks; ---; 337*  | Stoker & Koes.                 | 1949 + |
| <i>minimus</i><br><i>minimus</i><br>Theobald                           | ---; ---; 59*, 76*, 77*, 143*, 144*, 145, 146, 149, 190, 277 (Clear streams and springs with grassy margins, seepages, irrigation channels, burrow pits, tanks, rice fields, shallow earthen wells, in houses, bites on man)  | Boyd                           | 1949   |
|  | ---; ---; 70, 76, 77, 133, 139, 143, 144, 149, 277 (Slowly running hill streams with cool water, ditches with grassy edges, occasionally in rain pools)   | Hsiao                          | 1945   |
| <i>moghulensis</i><br>Christophers                                     | ---; ---; 3, 253  | Stone et al.                   | 1959   |
|  | ---; ---; 59  | Smart                          | 1943 + |
|  | Hill streams, springs, seepages; enters houses; 143, 162  | Russell et al.                 | 1943   |
|  | Rocky pools, fresh water springs in shade; ---; 143   | Puri                           | 1928   |
|  | Pools in stream beds; ---; 143, 235   | Macan                          | 1942   |
|  | ---; Oct.; 143  | Jaswant Singh                  | 1933   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR         | DATE   |
|---|--|----------------|--------|
| <i>ANOPHELES montanus</i><br>Stanton & Hacker | ---; ---; 143  | Iyengar        | 1928   |
|   | ---; ---; 145 (Dirty water with decaying vegetation, pools, streams, hilly areas and swamps)   | Boyd           | 1949   |
|   | ---; ---; 149  | Stone et al.   | 1959   |
|   | Dirty water with decaying vegetation, pools along jungle streams and swamps; jungle; 190   | Russell et al. |        |
| <i>multicolor</i><br>Cambouliu                | Brackish wells; ---; 2. Drains, irrigation canals and wells; Feb.; 270   | Leeson         | 1948   |
|   | Saline oasis; responsible for malaria; 25, 31, 150   | Macan          | 1942   |
|   | ---; ---; 143  | Puri           | 1928 a |
|   | Saline running water and pools; in houses; 150, 151  | Macan          | 1950 + |
|   | Reservoirs with high salt content; bites at night; 150°. Reservoirs with high salt content; bites at night, July, Sept.; 342*                                  | Shtakelberg    | 1937   |
|   | ---; suspected vector of malaria; 150  | Russell        | 1956   |
|   | Brackish coastal marshes, inland pools and streams; ---; 154   | Barraud        | 1921   |
|   | Swamp; enter houses; 154   | Kligler        | 1924 a |
|   | Salt marshes; ---; 154. ---; ---; 159. Brackish water; domestic; 342   | Stuart         | 1933   |
|   | Sunlit springs and marsh pools; enters houses; 159   | Lumsden & Yofe | 1950 + |
|   | Brackish water in water course and puddles along shore; ---; 159   | Shapiro et al. | 1944 + |
|   | Brackish water; ---; 174   | Saulet         | 1941 + |
|   | ---; ---; 235, 317 (Small pools, stagnant or flowing drains, unused wells, saline desert water, enter houses, considered a vector on epidemiological evidence) | Russell et al. | 1943   |
|   | Small pools with or without weeds, stagnant or flowing water, unused shallow wells, saline desert water; enters houses; 235°                                   | Boyd           | 1949   |
|   | Brackish water; enters houses; 302°  | Anonymous      | 1944   |
|   | ---; ---; 302  | Martini        | 1930   |
|   | Saline desert waters; ---; 317   | Christophers   | 1933 + |
|   | Salt water; urban, bites man, closely associated with outbreaks of malaria; 342°   | Buxton         | 1924 a |
|   | Brackish swamps; ---; 342  |                |        |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|---|---|------------------------|--------|
| <i>Anopheles multicolor</i><br>Cambouliu<br>(cont.) | Fresh water; ---; 342   | Senior-White           | 1948   |
| <i>naniwa</i><br>Hatori                             | ---; ---; 77  | Hatori                 | 1923 + |
| <i>nigerrimus</i><br>Giles                          | Sinuous marshy forest areas with aquatic vegetation, shell craters; Aug.-Oct.; 59   | Macan                  | 1948   |
|   | Margins of slow flowing streams, rice fields, swamps, artificial containers with vegetation, borrow pits; rarely in houses, bites man outdoors in evening and in shade by day; 59°  | Covell                 | 1944 + |
|   | Brackish water; experimentally infected with <i>Plasmodium Simmons vivax</i> , <i>P. malariae</i> and <i>P. falciparum</i> ; 59, 277. Sunny or shaded, muddy or clear, flowing or stagnant water, irrigation ditches, pools, rice fields, canals with vegetation; bites man readily, occasionally enters houses; 146*, 149* |                        | 1942 + |
|   | ---; ---; 59*   | Wilcocks               | 1944 + |
|   | ---; ---; 59, 70, 133, 144, 190, 242, 277 (Rice fields, ponds, ditches, pools, attacks man occasionally). ---; ---; 76 (Rice fields, ponds, ditches and pools). ---; ---; 143 (Ponds)   | Hsiao                  | 1945   |
|   | --; natural and experimental vector of <i>Wuchereria bancrofti</i> ; 70. ---; experimentally infected and natural vector of <i>W. bancrofti</i> and <i>W. malayi</i> ; 143, 190   | Raghavan               | 1961   |
|   | Clear open water with vegetation, muddy, brackish water, irrigation ditches; ---; 76, 133, 145  | Farner et al.          | 1946 + |
|   | Pools, paddy fields, and swamps; bite indoors and outdoors; 143°. ---; ---; 145   | Colless                | 1948   |
|   | Marsh land, sluggish streams, river banks, deep clean stagnant ditch; rarely enters houses; 143   | Strickland & Chowdhury | 1927   |
|   | ---; ---; 235   | Kumm                   | 1929 + |
|   | Rice fields, slow-moving and stagnant water; lowlands, naturally and experimentally infected with malaria; 242  | Bohart                 | 1945   |
|   | ---; ---; 337   | Stone et al.           | 1959   |
| <i>nigripes</i><br>Staeger                          | ---; ---; 256, 317, 345 (Bites man, vector of malaria)  |                        |        |
|   | Tree holes; ---; 317  | Irfan & Vogel          | 1927 + |
|   | ---; carrier of malaria; 317  | Anonymous              | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                    | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                    | DATE |
|--|---|---------------------------|------|
| <i>ANOPHELES novumbrosus</i><br>Strickland | Jungle pools, drains, swamps: naturally infected with and suspected vector of malaria; 190  | Covell                    | 1944 |
|  | Heavily overgrown drains; Jan.-June; 190  | Hodgkin                   | 1939 |
|  | ---; naturally infected with <i>Plasmodium vivax</i> ; 190  | Kingsbury                 | 1939 |
|  | ---; ---; 190*  | Kingsbury                 | 1938 |
| <i>nursei</i><br>Theobald                  | Pools in stream beds; enters houses; 235  | Christophers              | 1916 |
|  | ---; rare, Sept.-Oct.; 235  | Sinton                    | 1917 |
| <i>ohomai</i><br>Ohoma                     | ---; ---; 257   | Stone et al.              | 1959 |
| <i>palestinensis</i><br>(Theobald)         | Weed-choked streams; carrier of malaria; 154.<br>Swampy ground; ---; 159  | Austen                    | 1919 |
| <i>pallidus</i><br>Theobald                | ---; ---; 59, 70, 143, 149, 190, 277 (Rice fields, tanks with vegetation, seepages, stagnant pool's, swamps, borrow pits, in houses)          | Boyd                      | 1949 |
|  | ---; ---; 59, 70 (Ditches and ponds with vegetation, along lake margins and rice fields)  | Russell et al.            | 1943 |
|  | Rice fields; in houses; 143   | Russell & Ramachandra Rao | 1941 |
|  | Ditches, stagnant pools; ---; 143. ---; naturally infected with malaria; 366 (Rice fields, tanks with vegetation, borrow pits, enters houses) | Covell                    | 1944 |
|  | Artificial containers, borrow pits; ---; 143, 235   | Strickland & Chowdhury    | 1927 |
|  | ---; experimentally infected, natural vector of <i>Wuchereria bancrofti</i> ; 143*  | Raghavan                  | 1961 |
|  | ---; naturally infected with <i>W. bancrofti</i> , vector of nocturnal filariasis; 143*   | Manson-Bahr               | 1959 |
|  | ---; intermediate host of <i>W. bancrofti</i> ; 143   | Basu & Sundar Rao         | 1939 |
|  | ---; naturally infected with and vector of malaria; 143*  | Jay & Biswas              | 1942 |
|  | ---; infected with sporozoites; 143   | Senior-White              | 1943 |
|  | ---; Jul.-Dec.; 143   | Subramanian & Gupta       | 1950 |
|  | ---; Jan.-Sept.; 143  | Abraham & Samuels         | 1944 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|--|--|--------------------------------|--------|
| <i>ANOPHELES pallidus</i><br>Theobald<br>(cont.) | ---; ---; 144, 149, 190, 277. ---; naturally infected with malaria; 143 (Lake margins, ditches, ponds with vegetation, shallow pools in stream beds, in houses)<br>---; ---; 146 | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Rice fields, open marshy areas, wells, artificial containers; ---; 190   | Gater                          | 1934 + |
|  | Rice fields and ponds; dry delta regions; 235  | Iyengar                        | 1930 + |
|  | Reservoirs, borrow pits; ---; 235  | Das                            | 1943 + |
|  | ---; ---; 242  | Dyar & Shannon                 | 1925   |
|  | Hoof marks near borrow pits, road side drains and moats; ---; 277  | Barraud & Christophers         | 1931   |
|  | ---; ---; 337  | Gater                          | 1933 b |
|  | ---; ---; 366 (Pools and lakes)  | Roy & Brown                    | 1954   |
| <i>palmatus</i><br>(Rodenwaldt)                  | ---; ---; 145, 146, 149 (Shady shallow pool margins of slow flowing streams)   | Boyd                           | 1949   |
|  | Shallow inlets at sides of slow running streams with dead leaves in forest shade; ---; 190   | Gater                          | 1934 + |
|  | ---; ---; 277  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | ---; ---; 337  | Stone et al.                   | 1959   |
| <i>pampanai</i><br>Büttiker & Beales             | ---; ---; 59, 144  | Stone et al.                   | 1959   |
| <i>parangensis</i><br>(Ludlow)                   | ---; ---; 143  | Puri                           | 1928 a |
|  | Fresh water pools; ---; 145  | Russell et al.                 | 1943   |
|  | ---; ---; 145, 242 (Pools with dirty water without vegetation and clear water with algae, fresh and brackish, sunny and shaded)  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Fresh water pools, shaded with abundant vegetation; rare; 242  | Russell & Baisas               | 1935   |
|  | Fishponds; ---; 242  | Bohart                         | 1945   |
| <i>pattoni</i><br>Christophers                   | Fresh water pools, rocks of streams, in seepage along river banks, rice paddies; experimental carrier of malaria, May, June, Sept. and Oct.; 76                                  | Crook                          | 1939   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                       |
|---|--|---|--|
| <i>ANOPHELES pattoni</i><br>Christophers<br>(cont.) | Slow running hill streams, water pockets along stream borders, rain pools, pools of sandy bottom river beds; naturally infected with <i>Plasmodium vivax</i> ; 76°<br><br>Seepage along river banks, rice paddies; May, June, Sept., Oct.; 76<br><br>Streams, ponds pools with vegetation; ---; 76 | Hsiao<br><br>Crook<br><br>Meleney et al.          | 1945<br><br>1939<br><br>1927               |
|   | ---; experimentally infected with <i>P. vivax</i> , malaria carrier in hilly regions, important vector of malaria, Aug.-Nov., in hilly regions, Sept.-Oct.; 76*  | Feng  | 1935                                       |
|   | ---; common, experimentally infected with <i>P. vivax</i> , Sept.-Oct.; 76   | Feng  | 1937                                       |
|   | ---; capable of transmitting malaria; 76   | Hindle & Chow                                     | 1929                                       |
|   | ---; frequents houses; 76  | Meng  | 1943                                       |
|   | ---; possible vector of malaria; 144   | Russell   | 1956                                       |
|   | ---; ---; 144*, 158*   | Geigy & Herbig                                    | 1955                                       |
|   | Rock rain pools, hill streams; ---; 194*   | Anonymous   | 1946                                       |
| <i>peditaeniatus</i><br>(Leicester)                 | ---; ---; 59, 70, 143, 144, 146, 149, 190, 242 277<br>(Ponds and lakes)  | Bonne-Wepster & Swellen-grebel                    | 1953                                       |
|   | ---; ---; 337  | Stone et al.                                      | 1959                                       |
| <i>persicus</i><br>Edwards                          | ---; ---; 150  | Stone et al.                                      | 1959                                       |
| <i>pharoensis</i><br>Theobald                       | ---; ---; 2<br>---; ---; 143<br><br>Rice fields with vegetation; rarely in houses; 154*<br><br>Small temporary collections of water; coastal plain; 154  | Kumm<br><br>Puri<br><br>Boyd<br><br>Garrett-Jones | 1929<br><br>1928 a<br><br>1949<br><br>1962 |
|   | Shallow puddles; Nov.; 154   | Shapiro   | 1933                                       |
|   | Reservoirs in groves and seepage; ---; 154   | Anonymous   | 1944 c                                     |
|   | ---; rare, Aug.; 154   | Barraud   | 1921                                       |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                         | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR             | DATE   |
|---------------------------------|---|--------------------|--------|
| <i>ANOPHELES pharoensis</i>     | ---; ---; 154°  | Buxton             | 1924 a |
| Theobald (cont.)                | ---; ---; 159*  | Searle             | 1920   |
|                                 | ---; ---; 270, 332  | Stone et al.       | 1959   |
|                                 | Desert, rice fields, ponds and water holes, in wells and reservoirs; all year, experimentally infected with malaria; 302, 342   | Martini            | 1930   |
|                                 | ---; ---; 317   | Christophers       | 1920   |
|                                 | Swamps; ---; 342  | Macan              | 1942   |
|                                 | ---; in houses, naturally infected with malaria; 342°   | Russell et al.     | 1943   |
|                                 | ---; Aug.-Dec.; 342   | Senevet & Kuareili | 1956   |
| <i>philippinensis</i><br>Ludlow | Rice fields; ---; 11. ---; naturally infected with malaria; 59. Rice fields, reservoirs, borrow pits, canals; enters houses, bites at night, important vector of malaria; 366*° (Tanks, pools, borrow pits and ditches with vegetation) | Covell             | 1944   |
|                                 | Rush swamp; ---; 11   | Christophers       | 1933 + |
|                                 | Weedy tanks; ---; 11  | Wilcocks           | 1944 a |
|                                 | ---; bites man outdoors, suspected vector of malaria; 59°   | Macan              | 1950 a |
|                                 | Sinuous marshy forest areas with vegetation; active by day and night, Jan.-Mar., Aug.-Oct.; 59°   | Macan              | 1948   |
|                                 | ---; ---; 59, 76, 133, 144, 242, 277, 337 (Ponds, rice fields, ditches and fresh water pools)   | Hsiao              | 1945   |
|                                 | ---; ---; 70, 144, 146, 149, 190, 242, 277. Ponds exposed to sun; in houses, naturally infected with malaria; 143° (Tanks, pools, ditches, swamps, borrow pits, rice fields)  | Boyd               | 1949   |
|                                 | Sloughs, open rush swamps, stagnated canals and ditches; ---; 76, 133, 143, 146, 149, 242, 277  | Tarner et al.      | 1946 + |
|                                 | Stagnant water, ponds, rice fields, swamps; ---; 76   | Chang              | 1940   |
|                                 | ---; in houses; 76  | Ling, Liu & Yao    | 1936   |
|                                 | ---; ---; 139   | Toumanoff          | 1934   |
|                                 | Tanks, pools, borrow pits with vegetation; rare; 143  | Panigrahi          | 1942   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|--|--|--------------------------------|--------|
| <i>ANOPHELES philippensis</i><br>Ludlow<br>(cont.) | Weedy tanks, rice fields, swamps, lakes; carrier of malaria; 143. ---; considered a vector of malaria, naturally infected with malaria; 366  | Roy & Brown                    | 1954   |
|  | Slow running streams with grassy edges, seepage water; ---; 143  | Christophers                   | 1933 + |
|  | ---; naturally and experimentally infected, natural and experimental vector of <i>Wuchereria bancrofti</i> ; 143   | Raghavan                       | 1961   |
|  | ---; open area outside the jungle; 143   | Iyengar                        | 1930 b |
|  | ---; June-Dec.; 143  | Sen                            | 1948   |
|  | ---; in houses; 143. ---; ---; 145, 190 (Rice fields, rush swamps, ponds, pools with vegetation, seepages, ditches, artificial containers, enters houses)  | Bonne-Wepster & Swellen-grebel | 1953   |
|  | ---; ---; 143**  | Iyengar                        | 1941   |
|  | ---; ---; 143°. ---; infected with malaria; 366  | Ramsay                         | 1930 a |
|  | Ponds, rice fields, ditches and fresh water pools; ---; 144  | Feng                           | 1938   |
|  | ---; all year, in houses; 144  | Raynal & Gaschen               | 1935   |
|  | Casual pools, buffalo wallows, seepages open to the sun or lightly shaded, paddy fields; enter houses; 145°. Clear water with vegetation and algae, exposed or slightly shaded, paddy fields either with growing rice or overgrown with sedge, grassy roadside pools and drains, swamp edges; bites man during early evening, enter houses; 242° | Colless                        | 1948   |
|  | Swamps with vegetation; all year; 190  | Hodgkin & Johnston             | 1935   |
|  | ---; experimentally infected with <i>Plasmodium falciparum</i> ; 190   | Kingsbury                      | 1932   |
|  | ---; experimentally infected with <i>W. bancrofti</i> ; 190  | Hodgkin                        | 1938   |
|  | ---; experimentally infected with <i>P. vivax</i> ; 190  | Green                          | 1935   |
|  | ---; in houses; 190  | Wharton                        | 1953   |
|  | ---; ---; 190°   | Wharton                        | 1952   |
|  | Water course and ponds; lowlands; 235  | Iyengar                        | 1930 + |
|  | ---; naturally infected with malaria, all year enters houses, naturally infected with malaria; 235. Clean large ponds, marshes overgrown with vegetation, rarely in shallow ditches and borrow pits, prefers sunlit places; Jul.-Nov., naturally infected with malaria, enters houses; 366   | Iyengar                        | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE     |
|--|--|------------------------|----------|
| <i>ANOPHELES</i><br><i>philippinensis</i><br>Ludlow<br>(cont.) | ---; ---; 235*   | Russell                | 1956     |
|  | Rain water ponds, rivers, streams, pools, rice fields and associated with <i>Pistia stratiotes</i> ; ---; 242          | Mieldzais              | 1930     |
|  | Springs with vegetation; May and Aug.; 242   | Baisas                 | 1931     |
|  | ---; naturally infected with malaria; 242  | Bohart                 | 1945     |
|  | ---; Oct.-Dec.; 242  | Russell                | 1931     |
|  | Mcats; enter houses in the evening; 277  | Barraud & Christophers | 1931     |
|  | ---; rare; 277   | Causey                 | 1937     |
| <i>philippinensis</i><br>var. <i>hainanensis</i><br>Takei      | ---; ---; 133  | Stone et al.           | 1959     |
| <i>pinjaurensis</i><br>Barraud                                 | ---; ---; 143  | Stone et al.           | 1959     |
| <i>pleccau</i><br>Koidzumi                                     | In springs, brooks with stony beds; at high altitudes, Oct.; 77  | Koidzumi               | 1930     |
| <i>plumbeus</i><br>Stephens                                    | Concealed places, artificial containers, under roots, tree holes; ---; 28  | Shtakelberg            | 1925 +   |
|  | Muddy water; ---; 28   | Rukhadze               | 1926 a + |
|  | ---; experimentally infected with malaria; 28°, 118°, 318°, 321. Tree holes; experimental transmission of malaria; 31° | Shtakelberg            | 1937     |
|  | Tree holes; enters houses, bites man, above 6000 feet elevation; 31°   | Christophers           | 1916     |
|  | Tree holes; ---; 35  | Veisig                 | 1931     |
|  | ---; ---; 118°   | Shlenova               | 1941     |
|  | Tree holes, artificial containers; forests; 118  | Zolotnikova            | 1929     |
|  | Tree holes, small pools in the jungle; ---; 143°   | Christophers & Chand   | 1916     |
|  | Tree holes, springs, streams, ground pools, swamps, artificial containers; ---; 150, 256, 318                          | Logan et al.           | 1953 +   |
|  | ---; ---; 162  | Smart                  | 1943 +   |
|  | ---; ---; 235  | Christophers           | 1920     |
|  | Rice fields, irrigation ditches; ---; 256  | Zvyagintzev            | 1939     |
|  | ---; tree holes, in houses, severely bites at night; 256°  | Shlenova               | 1938 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)              | AUTHOR                                | DATE   |
|--|--|---------------------------------------|--------|
| <i>ANOPHELES plumbeus</i><br>Stephens<br>(cont.) | ---; forests; 256*   | Danilova &<br>Lappin                  | 1937   |
|  | ---; ---; 303  | Senevet &<br>Andarelli                | 1956   |
|  | ---; ---; 317  | Stone et al.                          | 1959   |
|  | ---; ---; 318 (Irrigation systems)   | Petrishcheva                          | 1931   |
|  | ---; forests; 318  | Beklemishev &<br>Zhelokhovtzev        | 1945 + |
|  | Tree holes; ---; 321   | Shakhov                               | 1928 a |
|  | ---; bites man during day; 321°  | Shakhov                               | 1928 + |
|  | Open reservoirs; ---; 345  | Montchadskii                          | 1926   |
|  | Tree holes; ---; 345*, 350*  | Macan                                 | 1942   |
|  | ---; enters houses, bites man day and night; 345°,<br>350°                           | Russell<br>et al.                     | 1943   |
| <i>plumbeus</i><br><i>barianensis</i><br>James   | , ---; ---; 143  | Iyengar                               | 1928   |
| <i>plumiger</i><br>Donitz                        | ---; ---; 139  | Stone et al.                          | 1959   |
| <i>pretoriensis</i><br>Theobald                  | ---; ---; 25   | Bedford                               | 1928   |
|  | Streams and pools with no vegetation or shade; in<br>houses; 270                     | Macan                                 | 1942   |
| <i>pseudo-</i><br><i>barbirostris</i><br>Ludlow  | Clear densely shaded pool; ---; 70   | Carter                                | 1925   |
|  | ---; extremely rare; 70  | D'Abraera                             | 1944   |
|  | ---; ---; 143  | Smart                                 | 1943 + |
|  | Sunlit pools; ---; 145. ---; ---; 147  | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
|  | Spring with vegetation, lake thickly vegetated;<br>May and Aug.; 242                 | Baisas                                | 1931   |
|  | Ditches, canals and rice fields; ---; 242  | Simmons                               | 1942 + |
| <i>pseudojamesi</i><br>Strickland &<br>Choudhury | Stagnant ponds and ditches; ---; 143   | Iyengar                               | 1930 a |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 143                       | Manson-Bahr                           | 1959   |
|  | ---; experimentally infected and experimental vector<br>of <i>W. bancrofti</i> ; 143 | Raghavan                              | 1961   |
|  | ---; all year; 143   | Iyengar                               | 1932   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE     |
|---|--|--------------------------------|----------|
| <i>Anopheles pseudopictus</i><br>Grassi | ---; ---; 28   | Popoff                         | 1924     |
|   | Rice fields, flooded lowlands, rain puddles, pools, springs, drainage ditches; ---; 35   | Voskressenskii & Brenn         | 1928 +   |
|   | ---; ---; 76, 190  | Christophers                   | 1920     |
|   | ---; ---; 118  | Ermolov                        | 1914     |
|   | ---; ---; 144  | Koun                           | 1926     |
|   | ---; ---; 317  | Hakki                          | 1931 +   |
| <i>pseudosinensis</i><br>Baisas         | Large bodies of water with aquatic vegetations; ---; 242   | Bonne-Wepster & Swellen-grebel | 1953     |
| <i>pugnax</i><br>Colless                | ---; ---; 59, 149, 190   | Stone et al.                   | 1959     |
| <i>pulcherrimus</i><br>Theobald         | Brackish wells; ---; 2   | Leeson                         | 1948     |
|   | ---; ---; 3, 154, 174, 270, 302  | Stone et al.                   | 1959     |
|   | Swamps, stagnant grassy drains; ---; 25  | Buxton                         | 1944 +   |
|   | ---; naturally infected with malaria; 31, 151, 235.<br>---; ---; 37, 150. Open water with vegetation, large swamps, stagnant pools, rice fields; ---; 162. ---; naturally infected with malaria, enters houses; 326.<br>---; ---; 345 (In houses, bites man day and night) | Covell                         | 1944     |
|   | ---; ---; 31, 150, 162, 235, 345 (Swamps, vicious biter)   | Roy & Brown                    | 1954     |
|   | Flooded irrigation ditches; ---; 35  | Trofimov                       | 1942     |
|   | Swamps; ---; 35  | Trofimov                       | 1939     |
|   | Semi-stagnant drains with grass, reservoir, seepage pits, irrigation wells, swamps; May; 37  | Afridi & Majid                 | 1938 a   |
|   | ---; ---; 76   | Wu                             | 1936 a + |
|   | ---; ---; 122  | James & Liston                 | 1904 +   |
|   | In shallow pools; in houses; 143, 235  | Christophers                   | 1916     |
|   | Marshes; bites man viciously day and night; 143°, 342°   | Macan                          | 1942     |
|   | Open water with vegetation; ---; 143, 345  | Russell et al.                 | 1943     |
|   | ---; naturally infected with malaria; 143. ---; ---; 151*, 345* (Open water with vegetation, swamps, stagnated pools and rice fields, in houses, bites man)  | Boyd                           | 1949     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|--|--|---|--|
| <i>ANOPHELES pulcherrimus</i><br>Theobald<br>(cont.) | ---; common; 143, 151. ---; common in plains; 293<br><br>Clean or stagnant water with vegetation, weedy irrigation channels; Apr.-June, Oct., in houses; 150, 151<br><br>---; suspected vector of malaria; 150<br><br>Marshy areas, channels, ponds; bites both day and night in tents; 151°<br><br>---; ---; 151, 303, 318, 321, 345 (Lakes, pools, bites man)<br><br>Weeds, stagnant brackish water pools near desert edge; Oct.; 151<br><br>---; suspected vector of malaria; 151, 162, 345 (Shallow herbaceous ponds, swamps, rice fields, seepages, rain puddles, salty water, nocturnal, sometime diurnal, bites man in and outdoors)<br><br>Irrigation system, lakes, areas flooded by mountain rivers; common in desert area and foothills; 162<br><br>Overwinters as larva; enters houses; 162*. Running water; ---: 326* | Christophers<br>Macan<br>Russell<br>Patton<br>Shtakelberg<br>Barraud<br>Peus<br>Balkashina<br>Vassiliev<br>Petrishcheva & Polyakov<br>Sinton<br>Beklemishev & Zhelokhovtzev<br>Martini<br>Leeson<br>Keshish'yan<br>Petrishcheva<br>Mitrofanova<br>Petrishcheva<br>Brodska | 1921<br>1950 +<br>1956<br>1920<br>1937<br>1920<br>1942<br>1939 +<br>1913 +<br>1940 +<br>1917<br>1945 +<br>1930<br>1950 +<br>1941 +<br>1936 +<br>1941<br>1931 +<br>1923 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>ANOPHELES pulcherrimus</i><br>Theobald<br>(cont.)                               | Swamp-fed springs, drainage and irrigation ditches, rice fields; ---; 326<br>---; experimentally infected with malaria; 326<br>Stagnant water in irrigation ditches; ---; 345<br>---; ---; 349<br>---; enters houses; 354   | Ulitcheva<br>Simanin<br>Zaitzev<br>de Mello &<br>Afonso<br>Christophers   | 1943 +<br>1930 +<br>1934 +<br>1921<br>1933                                       |
| <i>pullus</i><br>Yamada  | Cool springs or pools and in the shade of trees on high land; anthropophilic, April and May, Sept.-Nov.; 168°<br>Shaded ponds; enters houses, May-Nov.; 168   | Hsiao<br>Yamada   | 1948<br>1937 +   |
| <i>punctibasis</i><br>Edwards  | ---; ---; 76<br>Muddy pool; ---; 158  | Faust<br>Lamborn  | 1926<br>1922   |
| <i>punctulatus</i><br>Dönnitz  | ---; ---; 76<br>---; ---; 77<br>---; ---; 143<br>---; ---; 144<br>---; in houses and in hospital near the swamps, Apr., May and July; 145<br>---; ---; 147* (Sunlit, natural and artificial water collections, banks of rivers and creeks, drains, trenches, swamps, hoof prints, enter houses to bite)<br>---; ---; 147 (Exposed water collections, seldom indoors, bites man, dangerous malaria carrier, infected with <i>Wuchereria bancrofti</i> )<br>---; ---; 149<br>---; enters houses, March, Oct.; 277°<br>---; ---; 277 | Faust<br>Secrete<br>Christophers<br>Koun<br>Roper<br>Covell<br>Bonne-Wepster<br>& Swellen-<br>grebel<br>Doorenbos<br>Barnes<br>Barnes | 1926<br>1916 +<br>1921<br>1926<br>1914<br>1944<br>1953<br>1931<br>1923<br>1923 a |
| <i>punctulatus</i><br><i>molluccensis</i><br>Swellengrebel<br>& Swell. de<br>Graaf | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 145<br>---; ---; 147* (Sunlit natural and artificial water, banks of rivers and creeks, drains, trenches, swamps, hoof prints, enter houses to bite)   | Manson-<br>Bahr<br>Covell   | 1959<br>1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                    | DATE   |
|--|---|---|--------|
| <i>ANOPHELES punctulatus</i><br>var. <i>tesselatus</i><br>Theobald | ---; ---; 70  | Senior-White                              | 1925   |
|  | Roadside puddles; ---; 143  | Iyengar                                   | 1924   |
|  | ---; ---; 144   | Lefebvre                                  | 1938   |
|  | ---; ---; 145   | Kariadi                                   | 1938   |
|  | ---; ---; 147   | Edwards                                   | 1921   |
| <i>ramsayi</i><br>Covell   | Clear, standing water in pools with algae, swamps, grassy tanks and permanent pools; enter houses; 59°, 70°   | Christophers                              | 1933 + |
|  | ---; rare; 59   | Puri                                      | 1927   |
|  | ---; rare; 70   | D'Abrera                                  | 1944   |
|  | Pools with algae, swamps, grassy tanks and clear-water swamps; naturally infected with malaria; 143. ---; ---; 144. ---; suspected vector of malaria; 190 (In houses) | Bonne-Wepster & Swellen-grebel            | 1953   |
|  | Artificial lake, low-lying garden; infected with sporozoites, natural carrier of malaria; 143   | Ramsay                                    | 1930   |
|  | In <i>Pistia stratiotes</i> ; fairly common; 143  | Senior-White, Adhikari, Ramakrishna & Roy | 1943   |
|  | Tanks and swamps with <i>Pistia</i> ; ---; 143  | Roy & Brown                               | 1954   |
|  | Ditches and ponds; ---; 143   | Iyengar                                   | 1931 a |
|  | ---; July; 143  | Senior-White                              | 1934   |
|  | ---; ---; 143°  | Ramsay                                    | 1930 a |
|  | ---; ---; 146, 149 277. In <i>Pistia stratiotes</i> ; ---; 366 (Rain water pools, tanks and swamps with vegetation, enters houses)                                    | Covell                                    | 1944   |
|  | Ponds; dry lowlands and delta; 233  | Iyengar                                   | 1930 + |
|  | ---; ---; 235   | Covell                                    | 1927   |
|  | Large grass swamp; in trains, Aug.-Nov.; 277  | Barraud & Christophers                    | 1931   |
| <i>relictus</i><br>Shingarev                                       | ---; ---; 326   | Stone et al.                              | 1959   |
| <i>rhodesiensis</i><br>Theobald                                    | Small pools in beds of river; ---; 2. Holes in volcanic rock fed by underground water; ---; 233   | Christophers & Chand                      | 1915   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>rhodesiensis</i>          | ---; ---; 25  | Séguy                          | 1924   |
| Theobald<br>(cont.)                              | ---; ---; 143. ---; rare; 235   | Sinton                         | 1917   |
|  | ---; ---; 150, 342. River bed pools, wells; ---; 233  | Covell                         | 1927 + |
|  | ---; ---; 151   | Christophers & Shortt          | 1921 b |
|  | Surface water pools; Mar.-May, Oct.; 233  | Gill                           | 1916   |
|  | In sluggish streams, irrigation channels; in houses; 235  | Christophers                   | 1916   |
|  | ---; ---; 270   | Stone et al.                   | 1959   |
| <i>rhodesiensis</i><br><i>rupicolus</i><br>Lewis | ---; ---; 2, 159, 174, 270, 302, 335  | Stone et al.                   | 1959   |
| <i>riparis</i><br>King &<br>Baisas               | ---; ---; 242   | Stone et al.                   | 1959   |
| <i>riparis</i><br><i>macarthuri</i><br>Colless   | ---; ---; 145, 190  | Stone et al.                   | 1959   |
|  | ---; ---; 277   | Scanlon & Sandhinand           | 1965   |
| <i>roperi</i><br>Reid                            | ---; ---; 145, 149. Jungle pools; ---; 190 (Jungle streams with decaying leaves, bites during the day)  | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>rossi</i><br>Giles                            | ---; ---; 11. ---; experimentally infected with <i>Plasmodium falciparum</i> , <i>P. vivax</i> ; 77, 149, 242.<br>---; enters houses, experimentally infected with <i>P. vivax</i> , <i>P. falciparum</i> , <i>P. malariae</i> ; 143. ---; experimental transmission of malaria, naturally infected with malaria; 190 | Gill                           | 1925   |
|  | ---; ---; 59, 70  | Christophers                   | 1921   |
|  | ---; carrier of malaria and filariasis; 76, 77, 143, 144  | Faust                          | 1926 a |
|  | In freshly formed pools, often muddy rain pools, more during monsoon; common in houses, experimentally and naturally infected with malaria; 143°. ---; experimentally infected with malaria; 242  | Christophers                   | 1916   |
|  | Streams, artificial containers, pools, shallow foul puddles; domestic; 143. Streams, artificial containers, pool; Dec.; 235   | Strickland & Chowdhury         | 1927   |
|  | Small muddy pools near houses and shallow pools; common, Apr., July-Dec.; 143   | Hodgson                        | 1914   |
|  | Temporary rain pools, irrigation channels, borrow pits, tanks, river floods; ---; 143   | Senior-White                   | 1928   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>ANOPHELES rossi</i><br>Giles<br>(cont.)          | Lake among weeds; ---; 143<br><br>Wells; ---; 143<br><br>In warm lime springs; ---; 145, 146, 147, 149<br><br>Mud holes; ---; 190<br><br>Any collection of water clean or dirty; common,<br>Aug.-Oct.; 235<br><br>Sunlit water, fresh and brackish water, salt beds,<br>irrigated rice fields, carabao wallows, tracks,<br>holes and troughs filled with water, foul water in<br>tanks; in houses, infected with oocysts and<br>sporozoites; 242°<br><br>Ponds; ---; 242<br><br>---; common, enters houses, Dec.; 277°<br><br>---; buildings, common; 277<br><br>---; ---; 349 | Annandale & Kemp<br><br>Fletcher<br><br>Brug<br><br>Lamborn<br><br>Sinton<br><br>Walker & Barber<br><br>Mieldazis<br><br>Barnes<br><br>Barraud & Christophers<br><br>de Mello & Afonso | 1916<br><br>1924<br><br>1931 a<br><br>1922 a<br><br>1917<br><br>1914<br><br>1930<br><br>1923<br><br>1931<br><br>1921 |
| <i>rossi</i><br>var. <i>indefinatus</i><br>(Ludlow) | ---; ---; 139<br><br>---; Jan.-Feb., enters houses; 143<br><br>---; March and June; 149  | Anonymous<br><br>Watson<br><br>Stanton   | 1915<br><br>1924<br><br>1915   |
| <i>rossi</i><br>var. <i>vagus</i><br>(Dönnitz)      | ---; ---; 59, 143 (Carrier of malaria)<br><br>Swamps, river bed, well; Dec., Jan., Mar.-Apr., June;<br>70<br><br>---; ---; 122<br><br>Streams, ponds, swamps, ditches, rice fields, pools;<br>Sept.; 143. Streams, borrow pits, ditches, pools;<br>Dec.; 235<br><br>---; cattle sheds, Oct.-Nov.; 143  | Christophers<br><br>Senior-White<br><br>de Mello & Afonso<br><br>Strickland & Chowdhury<br><br>Shortt  | 1916<br><br>1920 a<br><br>1921<br><br>1927<br><br>1924   |
| <i>ruficulus</i><br>Lewis                           | Shaded springs; ---; 159   | Lumsden & Yofe   | 1950   |
| <i>sacharovi</i><br>Favre                           | Salty water; enters houses, active June-Sept.; 3*,<br>150, 256*<br><br>Rice fields; ---; 28  | Lindberg<br><br>Ananyan  | 1949<br><br>1930 a +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                    | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                  | DATE   |
|----------------------------|--|-------------------------|--------|
| <i>ANOPHELES sacharovi</i> | Shallow, warm, standing sunlit water with dense vegetation, fresh and brackish water; ---; 31  | Feng                    | 1938   |
| Favre (cont.)              | ---; enter houses; 31°. ---; ---; 166, 345   | Hsiao                   | 1945   |
|                            | ---; ---; 35   | Kandelaki               | 1927 + |
|                            | Coastal marshes; enters houses, bites day and night; 76°, 150°, 151°, 256°, 321°, 345°. ---; enters houses; 342*   | Russell et al.          | 1943   |
|                            | ---; possible vector of malaria; 76. ---; ---; 150*, 151*. ---; ---; 154*, 302*. ---; spring and summer vector of malaria; 159*  | Russell                 | 1956   |
|                            | ---; carrier of malaria; 76  | Feng                    | 1935   |
|                            | ---; plains; 118   | Kalandadze & Sagatelova | 1938   |
|                            | Rice fields, swampy areas, rivers overgrown with vegetation; in houses; 150. Shaded tidal creeks, rice fields, rivers heavily overgrown with vegetation, swamps; common, Jan.-May, July-Dec., in houses; 151 | Macan                   | 1950 + |
|                            | ---; carrier of malaria; 151, 162, 302, 342  | Roy & Brown             | 1954   |
|                            | ---; possible vector of malaria, May-July, Oct.-Nov.; 154  | Garrett-Jones           | 1962   |
|                            | ---; Apr.-June, Oct.-Dec., enters houses; 154  | Lumsden                 | 1950 + |
|                            | Brackish water, stagnant pools, wells, swamps and reservoirs overgrown with algae; Mar.-Nov.; 159  | Anonymous               | 1944 c |
|                            | Marshes, lakes, ponds, ditches, streams, foot springs in usually unshaded seepages; enters houses; 159°, 302   | Lumsden & Yofe          | 1950 + |
|                            | Rice fields; enters houses; 162  | Vel'tishchev            | 1943   |
|                            | Running water in irrigation canals and springs, sometimes stagnant water; ---; 162   | Senevet & Andarelli     | 1956   |
|                            | ---; naturally infected with malaria; 162  | Vinogradskaya           | 1936   |
|                            | Large and small collections of semi-stagnant water with vegetation; bites man indoors at night; 174°*, 302°  | Leeson                  | 1950 + |
|                            | ---; caves and tree holes; 174°  | Sautet & Marneffe       | 1943 + |
|                            | ---; plains, plateaus and coastal areas; 174, 302  | Berberian               | 1946 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                    | AUTHOR                  | DATE   |
|--|--|-------------------------|--------|
| <i>ANOPHELES</i><br><i>sacharovi</i><br>Favre<br>(cont.) | Rice fields and flooded irrigation ditches; ---; 256                                       | Zvyagintzev             | 1939   |
|  | Mineral water with dense vegetation; ---; 256  | Chaikin &<br>Enikolopov | 1935   |
|  | River floods; ---; 256   | Terdschanian            | 1929 + |
|  | ---; ---; 303*   | Latushev                | 1929   |
|  | Saline water, marshes, lakes, rice fields, slow streams; important carrier of malaria; 317 | Anonymous               | 1944   |
|  | Stagnant, exposed, shallow water with vegetation; in houses; 317                           | Sabit                   | 1927 + |
|  | Artificial water holes, irrigation channels; ---; 317                                      | Martini                 | 1927 + |
|  | ---; ---; 317*   | Hakki                   | 1934 + |
|  | Rivers, springs, marshes; ---; 318   | Orlowa &<br>Schachow    | 1936 + |
|  | Lakes, streams, swamps; ---; 318   | Petrishcheva            | 1936 + |
|  | Irrigation systems; ---; 318   | Petrishcheva            | 1931   |
|  | Swamps, unused clay pits, brackish water; ---; 326   | Kazantzev               | 1932 + |
|  | Rice fields; ---; 326  | Khodukin                | 1927   |
|  | ---; experimentally infected with malaria; 326   | Simanin                 | 1930 + |
|  | Swamps and stagnant pools; Dec.; 342   | Anonymous               | 1929   |
|  | Puddles, dry river beds; ---; 342  | Anonymous               | 1930   |
|  | ---; in mountain caves and marshy thicket; 342   | Reitler &<br>Saliternik | 1929 + |
|  | ---; Mar.-July, Oct., Nov.; 342  | Kligler                 | 1928 + |
|  | ---; ---; 350  | Wu                      | 1940   |
|  | ---; ---; 354  | Martini                 | 1928 + |
| <i>samarensis</i><br>Rozeboom                            | Brackish water; near the sea coast; 242  | Rozeboom                | 1951   |
| <i>saperoi</i><br>Bohart &<br>Ingram                     | ---; bites in shade of woods during day; 257°  | Bohart &<br>Ingram      | 1946   |
| <i>saungi</i><br>Colless                                 | ---; ---; 145  | Stone et al.            | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE           |
|---|---|--------------------------------|----------------|
| <i>Anopheles schueffneri</i><br>Stanton | Drains, wells, streams, artificial containers; ---; 146 Gater<br>Ponds; ---; 146, 149   | Gater<br>Russell et al.        | 1934 +<br>1943 |
|   | ---; ---; 146, 149 (Jungle swamps, coastal pools, with vegetation, rice fields, near houses)  | Bonne-Wepster & Swellen-grebel | 1953           |
| <i>selegensis</i><br>Ludlow             | ---; ---; 256   | Stone et al.                   | 1959           |
| <i>separatus</i><br>(Leicester)         | Rice fields, water with vegetation; enters houses; 145  | Farner                         | 1943 +         |
|   | Brackish water; -- ; 145, 149, 150  | Reid & Hodkins                 | 1950 +         |
|   | ---; enter tents; 145°. Common on swamps away from the jungle, rarely amongst low or open vegetation and seems to show a strong preference for the more heavily shaded situations, occasionally along the jungle fringe; ---; 190 | Colless                        | 1948           |
|   | ---; possible vector of malaria; 145  | McArthur                       | 1950           |
|   | ---; ---; 145 (Shady places in streams, pond, swamps, pools, drains)  | Bonne-Wepster & Swellen-grebel | 1953           |
|   | ---; ---; 146   | Swellen-grebel                 | 1920 +         |
|   | ---; -- ; 147, 277  | Stone et al.                   | 1959           |
|   | ---; ---; 149. ---; naturally infected with malaria; 190 (Pools and streams up to 5000 feet, open swamps outside the jungle, shady wells, in deep jungle, enter houses)   | Covell                         | 1944           |
|   | Pools, streams at about 5000 feet elevation; rarely in houses, common in deep jungles; 190  | Russell et al.                 | 1943           |
|   | Large swampy pools; ---; 190  | Lamborn                        | 1922 a         |
|   | ---; infected with sporozoites, carrier of malaria; 190   | Hodgkin et al.                 | 1935           |
| <i>sergenti</i><br>(Theobald)           | Brackish wells; ---; 2  | Leeson                         | 1948           |
|   | Pools, swamps, often in fresh water oasis; ---; 31, 143, 302  | Macan                          | 1942           |
|   | ---; May; 37  | Afridi & Majid                 | 1938 a         |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>ANOPHELES</i><br><i>sergentii</i><br>(Theobald)<br>(cont.) | ---; ---; 143, 302, 342* (Rice fields, borrow pits, irrigation ditches with vegetation, seepages and drains, enters houses, bites at night)<br>---; ---; 150*<br><br>Slowly moving streams, irrigation channels, seepages under rocks and pebbles; Sept.-Nov.; 154, 159<br><br>Swamp; enter houses; 154<br><br>Moving water; ---; 154<br><br>---; bites in and outdoors, Sept.-Oct.; 154*. ---; seldom enters houses, Oct. and Nov.; 159*. ---; ---; 302*. ---; suspected vector of malaria; 313, 332<br><br>---; Apr.-June, Oct.-Dec., enter houses; 154<br><br>---; possible vector of malaria, in hills and rift valley, May-June, Oct.-Nov.; 158 | Russell et al.<br>Gutzevich<br>Anonymous<br>Kligler<br>Kligler<br>Russell<br>Lumsden & Yofe<br>Garrett-Jones<br>Shapiro et al.<br>Leescn<br>Peus<br>Boyd<br>Anonymous<br>Irdem<br>Stone et al.<br>Shapiro<br>Buxton<br>Stuart<br>Senevet & Andarelli | 1943<br>1948 +<br>1944 c<br>1924 a<br>1928<br>1956<br>1950 +<br>1962<br>1944 +<br>1950 +<br>1942 +<br>1949<br>1944<br>1942 +<br>1959<br>1933<br>1924 a<br>1933<br>1956 |
|   | ---; bushes in open fields in evening, bites in open, rests in caves, travel long distances; 159<br><br>Swamps, irrigation ditches, muddy pools, rock pools; in houses; 174, 302<br><br>Swampy places, pools, river margins, water in dry river beds, cisterns, wells, artificial containers, in sun or shade; enters houses at night; 233*  |  |  |
|   | Small pools, springs, irrigation channels, streams, river and stream pools, seepages, rice fields, in caves, houses and karezes; 235<br><br>Running, pebbly water; ---; 302<br><br>Hoof prints; desert regions; 317<br><br>---; ---; 340<br><br>Swamps, streams, pools, low-lying areas flooded by rivers, borrow pits, seepage, puddles, shores with vegetation and gravel; June-Sept., Nov.; 342<br><br>Small area of water, needs vegetation, under stones; closely associated with malaria; 342°<br><br>Clear water, drying up wadi beds, hoof marks; domestic; 342<br><br>---; July-Sept.; 342  |  |  |
|   |  |  |  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>ANOPHELES similissimus</i><br>Strickland &<br>Choudhury | ---; ---; 149<br><br>Pools, drains, swamps, streams, wells, ponds, usually under shade; ---; 190  | Bonne-Wepster & Swellen-grebel<br><br>Gater   | 1951<br><br>1934 +   |
| <i>simlensis</i><br>(James)                                | ---; ---; 143   | Brunetti  | 1917   |
| <i>sinensis</i><br>Wiedemann                               | ---; ---; 3, 257<br><br>Open or grass covered stagnant water, in ponds, wells, drains, mountain valleys and foothills; ---; 59°<br><br>---; ---; 59, 76, 144, 190, 277 (Still or slow moving, fresh or occasionally brackish water, usually unshaded, rice fields, lakes, swamps, borrow pits, grassy pools and ditches, in houses by day)<br><br>Rice field and well; ---; 70<br><br>River and paddy; ---; 70<br><br>---; naturally infected with malaria; 70, 76, 158, 190, 337. ---; possible vector of malaria; 77, 168. ---; Nov., Dec., naturally infected with malaria; 144*. ---; ---; 149*<br><br>Mountain lake; in high altitude, suspected biter, vector of malaria; 76<br><br>Rice fields; ---; 76*, 77*, 139*, 158*, 168*, 185*. ---; possible vector of malaria; 149<br><br>---; in houses, bites in deep shade and by night, in plains, experimentally infected with <i>Plasmodium vivax</i> and <i>Wuchereria malayi</i> ; 76° (Possible vector of <i>W. bancrofti</i> ). ---; in houses by night, Aug.; 257*<br><br>---; naturally and experimentally infected with <i>W. bancrofti</i> , possible vector of <i>W. malayi</i> ; 76<br><br>---; malaria carrier; 76, 77, 158<br><br>---; common; 77, 158<br><br>---; ---; 122<br><br>---; ---; 139<br><br>Tanks, irrigation channels; Sept.-Nov.; 143 | Stone et al.<br><br>Wilcocks<br><br>Bonne-Wepster & Swellen-grebel<br><br>Senior-White<br><br>Senior-White<br><br>Gaschen & Marneffe<br><br>Gaschen<br><br>Russell<br><br>Bohart & Ingram<br><br>Raghavan<br><br>Faust<br><br>Koidzumi<br><br>de Mello<br><br>Anonymous<br><br>Senior-White | 1959<br><br>1944 +<br><br>1953<br><br>1928<br><br>1920<br><br>1936<br><br>1935 a<br><br>1956<br><br>1946<br><br>1961<br><br>1926 a<br><br>1930<br><br>1934<br><br>1915<br><br>1928 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|---|---|------------------------|--------|
| <i>ANOPHELES sinensis</i><br>Wiedemann<br>(cont.) | Lakes, cisterns; ---; 143, 144, 149, 277. Rice fields, pools, swamps, borrow pits, cisterns, irrigation ditches, margins of slow flowing streams and lakes; ---; 145, 146. Lakes, cisterns; Oct.- Aug.; 190 | Farner et al.          | 1946 + |
|   | Artificial containers, streams, swamps, borrow pits, ditches, rice fields, pools; ---; 143, 235. ---; Nov.; 235   | Strickland & Chowdhury | 1927   |
|   | ---; Jan.-Feb., enter houses; 143   | Watson                 | 1924   |
|   | ---; open area outside jungle; 143  | Iyengar                | 1930 b |
|   | Rock pools with dense vegetation; ---; 144  | Borel                  | 1927 a |
|   | Stagnant water of furrows; ---; 144   | Borel                  | 1926 c |
|   | ---; all year, in houses, naturally infected with malaria; 144°   | Raynal & Gaschen       | 1935   |
|   | ---; rare; 144  | Borel                  | 1926 a |
|   | Lakes, bay and ponds; ---; 145, 146, 149  | Brug                   | 1931 a |
|   | ---; enters houses, naturally infected with malaria; 146  | Soesilo                | 1935 + |
|   | ---; naturally infected with <i>W. malayi</i> ; 146   | Rodenwaldt             | 1934 + |
|   | Stagnant water in open terrain; in dwellings, carrier of malaria; 149   | Doorenbos              | 1931   |
|   | Marshes or river bank, creeks; Jan. and Dec.; 151   | Barraud                | 1920   |
|   | Swamps; river boats; 151  | Acton                  | 1919   |
|   | ---; ---; 154   | Austen                 | 1919   |
|   | Artificial containers, concrete tanks, rice paddies, ground pools with marginal vegetation; night biter, naturally infected and suspected vector of Japanese "B" encephalitis, April-Dec.; 158              | La Casse & Yamaguti    | 1950   |
|   | Ponds, marshes, ditches, rice fields. slow moving streams; intermediate host of <i>W. bancrofti</i> , experimentally infected with <i>P. vivax</i> and <i>P. malariae</i> , indoors; 158°                   | Hsiao & Bohart         | 1946   |
|   | ---; experimentally infected with malaria; 158  | Christophers           | 1916   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                | DATE   |
|---|--|-----------------------|--------|
| <i>ANOPHELES sinensis</i><br>Wiedemann<br>(cont.) | Artificial containers, rice fields, pools, swamps, marshes, ditches, slow flowing streams with dense vegetation; enters houses and bites during night, Mar. and Apr., June-Sept.; 168* | Hsiao                 | 1948   |
|   | Swamps, ponds; Aug.; 190   | Lamborn               | 1922 a |
|   | In an algae covered pool; ---; 190. Duck ponds; ---; 280   | Smart                 | 1914   |
|   | ---; experimentally infected with <i>P. falciparum</i> and <i>P. vivax</i> ; 190   | Milne                 | 1947 + |
|   | ---; ---; 218  | Puri                  | 1948 + |
|   | ---; foothills to estuaries; 235   | Iyengar               | 1930 + |
|   | Spring with vegetation and small lake thickly vegetated; May and Aug.; 242   | Baisas                | 1931   |
|   | Rice paddy; rare; 242°   | Walker & Barber       | 1914   |
|   | Slow flowing vegetated canals and ponds, impounded spring water, shallow edges of lakes with algae and Chara; ---; 242   | Russell & Baisas      | 1935   |
|   | ---; ---; 256, 354   | Martini               | 1928 + |
|   | Grassy portions of fallow land and in grassy ditches and ponds; common, enter houses in the evening, Oct.; 277°  | Barnes                | 1923   |
|   | ---; Nov.; 277   | Barnes                | 1923 a |
|   | Brackish water; ---; 317   | Vogel & Martini       | 1927 + |
|   | Rice fields; ---; 317  | Martini               | 1928 a |
|   | ---; ---; 349  | de Mello & Afonso     | 1921   |
| <i>sinensis</i><br>var. <i>varius</i><br>Theobald | Swamps, rice fields, water with vegetation; may bite man in the open, rare in houses; 59, 143  | Christophers          | 1916   |
|   | ---; ---; 149  | Doorenbos             | 1931   |
|   | Swamps; ---; 151   | Christophers & Shortt | 1921 b |
| <i>sineroides</i><br>Yamada                       | Cold spring pools, marshes, running water; in houses, only partial development of <i>Wuchereria bancrofti</i> ; 76°, 158°, 168°  | Hsiao                 | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|---|--|------------------------|--------|
| <i>ANOPHELES sinensis</i><br>Yamada<br>(cont.)        | ---; experimentally infected with <i>W. bancrofti</i> ; 76<br>Fresh clean, shaded water, ditches, ground pools;<br>---; 158  | Feng                   | 1938 + |
|   | Slow flowing water, pools, marshes; ---; 158   | La Casse &<br>Yamaguti | 1950   |
|   | Ditches, streams, ground pools, tanks; ---; 168  | Hsiao &<br>Bohart      | 1946   |
|   | Tree holes in forest; ---; 143   | Barnett &<br>Toshioka  | 1951   |
| <i>sintoni</i><br>Puri                                | Tree holes; ---; 76  | Boyd                   | 1949   |
| <i>sintonoides</i><br>Ho                              | Tree holes; ---; 133   | Russell<br>et al.      | 1943   |
|   | Mountain stream pools; ---; 150  | Hsiao                  | 1945   |
| <i>sogdianus</i><br>Keshishian                        | Clear, shaded water of hill streams; ---; 303  | Macan                  | 1950 + |
|   | Hill streams; ---; 345   | Russell<br>et al.      | 1943   |
| <i>solomonis</i><br>(Belkin,<br>Knight &<br>Rozeboom) | River tributaries up to 1500 feet; ---; 146, 147   | Macan                  | 1942   |
| <i>splendidus</i><br>Koidzumi                         | River bed pools, ponds with vegetation; Sept.-Oct.; 59, 143. ---; ---; 122   | Boyd                   | 1949 + |
|   | ---; active at night; 59   | Stone et al.           | 1959   |
|   | Pools, river beds with stony or sandy bottom, earthen jars with rain water in open fields; in houses; 76°.<br>---; infected with oocyst; 139   | Christophers           | 1933 + |
|   | Pools and river beds with sandy bottoms, puddles along streams, artificial containers; rare, naturally infected with malaria; 76°. ---; ---; 133   | Feng                   | 1938   |
|   | ---; naturally infected with malaria, all year; 76, 133, 139   | Hsiao                  | 1945   |
|   | ---; ---; 76, 144, 277. ---; naturally infected with malaria; 77, 139, 143 (Small pools with vegetation, river beds, seepage pools, tanks, sluggish streams, enters houses to feed on man) | Feng                   | 1937   |
|   |  | Covell                 | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE                                       |
|--|---|---|--|
| <i>ANOPHELES</i><br><i>splendidus</i><br>Koidzumi<br>(cont.) | ---; ---; 76, 77, 143, 144, 277 (Pools with algae and other vegetation, river beds, artificial containers, slow streams, in houses, occasionally infected with malaria)<br><br>Streams, small pockets of water in sugar cane fields; ---; 77<br><br>---; experimentally infected with <i>Plasmodium falciparum</i> ; 77. ---; in buildings, experimentally infected with <i>P. falciparum</i> ; 143. ---; 144, 277 (Small pools of small streams, in clear or muddy water with marginal vegetation, irrigation channels, seepages)<br><br>Water flowing through grass, grassy pools, abandoned rice fields; naturally infected with <i>Wuchereria bancrofti</i> , rare; 139 | Boyd<br><br>Chow<br><br>Bonne-Wepster & Swellen-grebel<br><br>Jackson | 1949<br><br>1949 b<br><br>1953<br><br>1938 |
|  | Growing rice fields, field and irrigation channels, hill streams and spring pools; in dwellings; 143  | Russeil & Jacob   | 1942                                       |
|  | River and in large collection of water and marshes; ---; 143  | Srivastava  | 1950                                       |
|  | Small pools with aquatic vegetation; ---; 143<br>---; ---; 158<br>---; bites in evening; 277°   | Roy & Brown<br>Yamada<br>Barraud & Christophers                       | 1954<br>1925 +<br>1931 +                   |
| <i>squamosus</i><br>Theobald                                 | ---; ---; 143   | Puri  | 1928 a                                     |
| <i>stephensi</i><br>Liston                                   | ---; ---; 3, 277, 313<br>Drains and leakages, wells; enters houses, naturally infected with malaria; 25°  | Stone et al.<br>Buxton  | 1959<br>1944 +                             |
|  | Pools in stream bed and irrigation channels; carrier of malaria; 25*, 151*  | Macan   | 1942                                       |
|  | ---; ---; 25, 59, 150, 151 (Wells, cisterns, artificial containers, enter houses, anthropophilic)   | Hsiao   | 1945                                       |
|  | Shallow wells, irrigation channels, seepage pools and swamps, cement reservoir, garden pits with seepage water, pools of leakage from artesian wells; naturally infected with malaria, enters houses, May-June; 37  | Afidi & Majid   | 1938 a                                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR            | DATE   |
|---|---|-------------------|--------|
| <i>ANOPHELES stephensi</i><br>Liston<br>(cont.) | Drains; ---; 37*. ---; ---; 76, 143°, 151 (Drains, wells, cisterns, foundations, artificial containers, pools, stream beds and margins of streams, seepages, and marshy areas, irrigation channels, reservoirs, springs, bites man) | Covell            | 1944   |
|   | Pools in river beds, small pools near streams, in pots, cisterns; in houses, experimentally and naturally infected with malaria; 59, 143, 235   | Christophers      | 1916   |
|   | River edge, streams, seepages; Feb., Mar., May, active by day and night; 59   | Macan             | 1948   |
|   | ---; ---; 59, 340 (Wells, cisterns, stream beds and margins, seepages, irrigation channels and springs, artificial containers, feeds on man)  | Boyd              | 1949   |
|   | ---; domestic; 122  | de Mello          | 1938 + |
|   | Artificial containers, brackish pool with vegetation, ditch, ponds covered with algae; ---; 143   | Chalam            | 1927   |
|   | Wells, pools, slowl' moving stream; carrier of malaria; Hodgson 143   |                   | 1914   |
|   | Irrigation channels; Mar.-May; 143  | Senior-White      | 1928 a |
|   | Mill areas; May-Nov.; 143   | Singh & Jacob     | 1943   |
|   | Salt pans, drums filled with sea water and diluted with rain water; ---; 143  | Bana              | 1943   |
|   | Tanks, open earth drains, rain water puddles; ---; 143  | Roy               | 1931   |
|   | Unused wells containing brackish water; ---; 143  | Jaswant Singh     | 1933   |
|   | ---; experimentally infected with <i>Plasmodium falciparum</i> , <i>P. vivax</i> and <i>P. malariae</i> , sporozoite infections of the salivary glands; 143   | Iyengar           | 1933   |
|   | ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 143   | Raghavan          | 1961   |
|   | ---; intermediate host of <i>W. bancrofti</i> ; 143   | Basu & Sundar Rao | 1939   |
|   | ---; naturally infected with <i>W. bancrofti</i> ; 143*   | Manson-Bahr       | 1959   |
|   | ---; dry regions and upper delta; 143, 235  | Iyengar           | 1930   |
|   | ---; Jan.-Feb.; 143   | Abraham & Samuels | 1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                    | DATE   |
|---|--|---------------------------|--------|
| <i>ANOPHELES stephensi</i><br>Liston<br>(cont.) | ---; ---; 143*, 150*, 235*   | Russell                   | 1956   |
|   | ---; ---; 144  | Toumanoff                 | 1933   |
|   | Small stagnant and seepage pools, borrow pits, irrigation channels; May, June, Oct.; 150°. Stagnant pools in irrigation channels, borrow pits, seepage pools and hoof prints, with or without vegetation or organic matter; in houses, all year; 151 | Macan                     | 1950 + |
|   | ---; carrier of malaria; 150, 342. ---; ---; 190   | Roy & Brown               | 1954   |
|   | Clear pools in cultivated belt, swampy areas, creeks and irrigation canals; ---; 151   | Barraud                   | 1920   |
|   | Stagnant water in irrigation ditches, shallow wells; ---; 151. Pits; ---; 302  | Christophers & Shortt     | 1921 b |
|   | Cisterns and brackish pools; Oct.-Dec.; 233  | Gill                      | 1916   |
|   | Almost any collection of water; very common, May-Oct.; 235   | Sinton                    | 1917   |
|   | ---; ---; 242  | Bezzi                     | 1913   |
|   | Drains in gardens and date-palm groves, wells and borrow pits; Jan.; 230   | Leeson                    | 1948   |
|   | Swamps; carrier of malaria; 302  | Christophers & Shortt     | 1921   |
|   | Channels and water cuts among date-palms; ---; 302   | Patton                    | 1920   |
|   | ---; ---; 349  | de Mello & Afonso         | 1921   |
| <i>stephensi mysorensis</i><br>Sweet & Rao      | Irrigation channels, stream margins, wells; naturally and experimentally infected with malaria; 143, 235   | Covell                    | 1944   |
|   | ---; Aug., Oct., Nov., Jan. and Feb.; 143*   | Senior-White & Venkat Rao | 1943   |
| <i>stephensi stephensi</i><br>Liston            | ---; ---; 25, 59, 143, 150, 151 (Wells, cisterns, artificial containers, in houses, and barracks, important vector in urban areas)   | Russell et al.            | 1943   |
| <i>stookesi</i><br>Colless                      | ---; ---; 145  | Stone et al.              | 1959   |
| <i>subpictus</i><br>Grassi                      | ---; ---; 3, 150, 191, 218   | Stone et al.              | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>ANOPHELES</i><br><i>subpictus</i><br>Grassi<br>(cont.) | Brick pits, drains, garden furrows, rice fields; ---; 59, 70. Clear or polluted water, borrow and brick pits, drains, irrigation ditches, pools, garden furrows, roof gutters, rice fields; ---; 139°, 242<br>---; Sept., Oct., active at night; 59<br>---; ---; 59, 70, 77, 143, 147, 149, 242, 277.<br>---; naturally infected with malaria; 145 (Temporary or permanent collection of water, brackish pools, borrow pits, buffalo wallows, artificial containers, enters houses, bites man)<br>---; ---; 59, 70, 145, 146, 147, 149, 277. ---; in houses; 337 (All types of waters, experimentally infected with <i>Plasmodium falciparum</i> and <i>P. vivax</i> )<br>---; ---; 59, 70, 143, 277. ---; carrier of malaria; 145 (Borrow pits, buffalo wallows, roof gutters, in houses, bites man)<br>---; human baited traps, in houses, May-Nov., naturally infected with <i>Wuchereria malayi</i> ; 70 | Farner et al.<br>Macan<br>Covell<br>Bonne-Wepster & Swellen-grebel<br>Boyd<br>Carter<br>Hsiao<br>Riley<br>Faust<br>Chow & Balfour<br>de Mello & Bras de Sa<br>Christophers<br>Iyengar<br>Chalam<br>Abraham & Samuels<br>McCombie Young & Abdul Majid | 1946 +<br>1948<br>1944<br>1953<br>1949<br>1948<br>1945<br>1932<br>1929 +<br>1949<br>1935<br>1933 +<br>1931<br>1927<br>1944<br>1929 |
|   | Holes containing water; dry season and end of rainy season, Mar. and Oct., in houses; 122  |  |  |
|   | Borrow pits, buffalo wallows, brick pits, drains, pools, furrows, roof gutters, artificial containers, rice fields, irrigation channels, wells, weedy lake margins, moats, rivers; domestic; 143. Fish ponds; ---; 146   |  |  |
|   | Brackish water; in houses; 143   |  |  |
|   | Artificial containers, brackish pools with some vegetation, ditch, ponds covered with algae; ---; 143  |  |  |
|   | River beds, tanks, wells, puddles; ---; 143  |  |  |
|   | Rain water pools, paddy fields; ---; 143   |  |  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR           | DATE   |
|---|--|------------------|--------|
| <i>ANOPHELES subpictus</i>                              | Cement pits, sewage; ---; 143  | King et al.      | 1929   |
| Grassi<br>(cont.)                                       | ---; naturally and experimentally infected with <i>W. bancrofti</i> , experimentally infected with <i>W. malayi</i> ; 143*, 146* | Raghavan         | 1961   |
|   | ---; experimentally infected with <i>P. malariae</i> , <i>P. vivax</i> , <i>P. falciparum</i> ; 143°                             | Roy              | 1943   |
|   | ---; possible carrier of malaria; 143  | Mayne            | 1928   |
|   | ---; naturally infected with malaria; 143  | Mayne            | 1928 a |
|   | ---; ---; 143*, 146*   | Manson-Bahr      | 1959   |
|   | ---; all year, in houses; 144°   | Raynal & Gaschen | 1935   |
|   | ---; ---; 144  | Gaschen          | 1935 b |
|   | ---; ---; 145**  | Wilcocks         | 1944 d |
|   | ---; experimentally infected with <i>W. bancrofti</i> ; 147*, 149  | Farner           | 1943 + |
|   | Sunlit or partially shaded swamps, temporary brackish, salt, or fresh, domestic or polluted water; enters houses; 190*°, 337*°   | Lee & Woodhill   | 1944 + |
|   | ---; Mar.-Apr., Nov.-Jan.; 190   | Lamborn          | 1922 a |
|   | Muddy pools, shallow bank; in houses; 235°   | James            | 1904 + |
|   | Brackish wells and tanks; ---; 235   | Mhaskar          | 1913 + |
|   | ---; foothills to estuaries; 235   | Iyengar          | 1930 + |
|   | Sun exposed edges of large rivers, ponds, salt beds; ---; 242  | Mieldazis        | 1930   |
|   | ---; in houses at night, Oct.-Dec.; 242  | Russell          | 1931   |
|   | Open and closed ditches, rice fields; in houses; 277   | Causey           | 1937   |
|   | ---; ---; 280  | Kumm             | 1929 + |
| <i>subpictus</i><br>var. <i>indefinitus</i><br>(Ludlow) | Pools in fallow rice fields, ditches; ---; 76  | Chow             | 1949 a |
|   | Clear unshaded, fresh or brackish water in streams, pools, lakes; in houses at night; 77°  | Covell           | 1944   |
|   | ---; ---; 77, 144, 242 (Rivers, irrigation channels, wells, in houses, bites man)  | Boyd             | 1949   |
|   | Fallow rice fields, river beds; ---; 77  | Chow             | 1949 b |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                | DATE   |
|--|---|---------------------------------------|--------|
| <i>ANOPHELES</i><br><i>subpictus</i><br>var. <i>indefinitus</i><br>(Ludlow)<br>(cont.) | Fresh, brackish, clear or polluted water, borrow pits, Farner et al. 1946 +<br>wallows, pits, drains, pools, garden furrows, roof<br>gutters, rice fields, irrigation channels; ---; 133<br>---; ---; 144, 242 (Clear, unshaded, fresh water in<br>streams, rivers, pools, irrigation ditches, lakes<br>and wells, sometimes in brackish or ocean salt<br>water, enters houses at night, feed on man) | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
|  | Clear sunlit water of streams and pools, irrigation<br>ditches, lakes, wells, occasionally in brackish<br>water; experimentally infected with <i>Wuchereria</i><br><i>malaria</i> ; 242   | Bohart                                | 1945   |
|  | Shaded, vegetated creek border, temporary puddles,<br>swamps, artificial containers; ---; 242   | Bick                                  | 1949   |
| <i>subpictus</i><br>var. <i>malayensis</i><br>Hacker                                   | ---; ---; 145   | Stone et al.                          | 1959   |
|  | Fresh or brackish water, rice fields, swamps, rivers<br>and hoof prints; ---; 146   | Stoker &<br>Koes.                     | 1949 + |
|  | Borrow and brick pits, irrigation ditches, pools,<br>roof gutters, garden furrows; ---; 190, 277  | Farner et al.                         | 1946 + |
|  | Open swamps, ponds, drains, streams, fresh and brackish<br>water; ---; 190°   | Russell<br>et al.                     | 1943   |
|  | Pools near houses, large swampy pools; ---; 190   | Lamborn                               | 1922 a |
|  | ---; experimentally infected with <i>Plasmodium</i><br><i>falciparum</i> and <i>P. vivax</i> ; 190  | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
|  | ---; enters houses; 190   | Lamborn                               | 1922 b |
|  | ---; all year; 190  | Kingsbury                             | 1932   |
|  | Weedy canals and ponds; enters houses; 277  | Barraud &<br>Christophers             | 1931   |
| <i>subpictus</i><br><i>rossi</i><br>Giles  | Drains, vats, rainwater puddles; ---; 143   | Roy                                   | 1931   |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ,<br>vector of nocturnal filariasis; 143*  | Manson-Bahr                           | 1959   |
| <i>subpictus</i><br><i>subpictus</i><br>Grassi   | Hoof marks near sea shore, brackish water with<br>vegetation; bites man; 143°   | Feng                                  | 1938   |
|  | ---; ---; 143, 146  | Garms                                 | 1960   |
|  | ---; ---; 190 (Temporary or permanent collection of<br>water, sewage-contaminated pools, brackish water,<br>borrow pits, artificial containers, bites man)  | Russell<br>et al.                     | 1943   |
| <i>subpictus</i><br>var. <i>vagus</i><br>Dönnitz                                       | ---; common; 70   | Carter                                | 1925   |
|  | ---; ---; 143   | Patton                                | 1922   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>sundaicus</i><br>(Rodenwaldt) | Salt swamps; May-Sept.; 11°   | Wilcocks                       | 1944 a |
|  | ---; malaria carrier; 11*, 143, 144*, 145, 146, 337.<br>---; ---; 59*, 76, 190, 224*, 277* (Fresh and saline water, usually with algae, borrow pits and hoof prints in cleared mangrove areas, sewage polluted water, fish ponds, enters houses, bites man day and night) | Covell                         | 1944   |
|  | Borrow pits; bites man at night, Oct. to Nov.; 59°  | Macan                          | 1950 a |
|  | ---; carrier of malaria; 59, 242, 277 (Tends to bite man, in houses). ---; ---; 143, 146 (Tends to bite man, in houses). ---; ---; 149 (Tends to bite man)  | Roy & Brown                    | 1954   |
|  | ---; ---; 59, 143, 145, 146, 147, 277 (Sea water lagoons, swamps, brackish water behind coastal embankments, bites man). ---; ---; 366*   | Russell et al.                 | 1943   |
|  | ---; ---; 77, 149 (Lagoons, swamps, borrow pits, hoof prints, in houses, bites man)   | Boyd                           | 1949   |
|  | ---; ---; 122   | de Mello                       | 1934 + |
|  | Foreshore, channels, tidal rivulets, casuarina pits and spring pools; enters houses; 143  | Sundaresan & Appa Rao          | 1943   |
|  | Tanks, wells, weed belts in lake along shore; naturally infected with malaria, Jan.-July; 143   | Senior-White & Adhikari        | 1939   |
|  | Ponds, pools, borrow pits, aquatic vegetation;<br>---; 143  | Panigrahi                      | 1942   |
|  | Clear water pools without vegetation; ---; 143  | Christophers                   | 1933 + |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 143*, 146*   | Raghavan                       | 1961   |
|  | ---; July to Dec.; 143  | Sen                            | 1948   |
|  | ---; ---; 143*. Brackish sunlit pools and drains along the coast; ---; 190*. ---; ---; 235*, 337*   | Russell                        | 1956   |
|  | ---; infected with malaria; 144. Fresh water collections; ---; 146 (Brackish water, in houses, bites man)   | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Brackish water, in borrow pits and in salt marshes; common during dry season; 144   | Treillard                      | 1934   |
|  | Brackish water; ---; 145*. ---; ---; 148*. Fresh water; ---; 149 (Bites man readily). Sunlit brackish pools, lagoons and brackish fish ponds;<br>---; 337 (Bites man readily)   | Wilcocks                       | 1944 d |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR         | DATE   |
|---|---|----------------|--------|
| <i>ANOPHELES</i><br><i>sundaicus</i><br>(Rodenwaldt)<br>(cont.) | Stagnant, brackish or fresh water in sun, with filamentous green algae; in houses, experimentally infected with <i>W. bancrofti</i> ; 146. ---; experimentally infected with <i>W. bancrofti</i> ; 149  | Farner         | 1943 + |
|   | Along coastal zone; ---; 146. Sunlit, brackish, standing water with much vegetation; in houses; 190   | Lee & Woodhill | 1944 + |
|   | ---; ---; 146 *   | Hayes          | 1959   |
|   | ---; naturally infected with malaria; 147   | Simmons        | 1942 + |
|   | Coastal lagoons, water with abundant <i>Enteramorpha</i> ; strong flier; 149, 190   | Farner et al.  | 1946 + |
|   | ---; naturally infected with filaria; 149   | van Beukering  | 1939 + |
|   | Large pools with grassy edges, large and small drains; 190  | Hodgkin        | 1938   |
|   | ---; 190  |                |        |
|   | ---; possible vector of malaria; 190°   | Wharton        | 1953   |
|   | ---; experimentally infected with <i>Plasmodium falciparum</i> Green and <i>P. vivax</i> ; 190  |                | 1935   |
|   | ---; ---; 235   | Puri           | 1948 + |
|   | Brackish water; ---; 277  | Wilcocks       | 1944 b |
|   | ---; ---; 280   | Stone et al.   | 1959   |
|   | Brackish water not subject to tidal flushing and containing vegetation, large ponds used to cultivate a floating weed, in water without vegetation, small tidal creeks, fresh water; bites during day and small numbers during the night, enters houses; 337° | Colless        | 1948   |
|   | In fresh water; ---; 337  | Gater          | 1933 b |
| <i>superpictus</i><br>Grassi                                    | ---; July-Sept.; 3*. ---; ---; 35*, 150*, 151*, 235*, 302*. ---; summer, in hilly areas; 154*. ---; July and Sept.; 159*  | Russell        | 1956   |
|   | ---; important malaria carrier; 3, 150, 162, 235, 303, 342  | Roy & Brown    | 1954   |
|   | ---; ---; 3*  | Lindberg       | 1949   |
|   | Foul, stagnant water; ---; 28   | Popov          | 1924   |
|   | Mountain springs; ---; 28   | Ananyan        | 1930   |
|   | Rice fields; ---; 28  | Ananyan        | 1929 a |
|   | ---; ---; 28, 35, 118, 143, 150, 256, 318, 326, 342, 345 (Reservoirs, bay of spring rivers, in rocks, rice fields, bites man)   | Shtakelberg    | 1937   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE     |
|---|--|------------------------|----------|
| <i>ANOPHELES superpictus</i><br>Grassi<br>(cont.) | ---; ---; 31, 340  | Stone et al.           | 1959     |
|   | River bed pools, water with <i>Spirogyra</i> and<br><i>Desmidiaceae</i> ; July-Oct., river valley villages; 35                           | Bogojawlewski          | 1933 +   |
|   | Delta pools of brooks; ---; 35   | Voskressenski & Brenn  | 1928 +   |
|   | ---; ---; 76, 118  | Kumm                   | 1929 +   |
|   | Hill streams; ---; 143, 150, 317 (Vector of malaria)   | Macan                  | 1942     |
|   | ---; May-Nov.; 143. ---; Mar., summer; 342   | Senevet & Andarelli    | 1956     |
|   | ---; malaria carrier; 143, 144   | Faust                  | 1926 a + |
|   | ---; ---; 143, 150, 151, 302, 317, 318, 342, 345<br>(Pools, streams, rivers, irrigation ditches with<br>water, enter houses to bite man) | Russell et al.         | 1943     |
|   | Clean sunlit, moderately shallow water; Jan.-Nov.,<br>in houses; 150°, 151   | Macan                  | 1950 +   |
|   | Puddles, flooded fields, ditches with spring water,<br>rice fields; ---; 150   | Beklemishev & Gontaeva | 1943 +   |
|   | Brooks, swamps; ---; 150   | Gutzevich              | 1948 +   |
|   | ---; common in summer and in autumn; 150   | Gutzevich              | 1943     |
|   | ---; mid-winter; 150. Pools in river beds,<br>irrigation channels, vineyards; ---; 151   | Christophers & Shortt  | 1921 b   |
|   | Rice fields around villages; ---; 151  | Etherington & Sellick  | 1946 +   |
|   | Moving waters; possible vector of malaria; 154   | Kligler                | 1928     |
|   | Eddies and backwaters of quickly running streams<br>where the larvae fasten themselves to small stones;<br>---; 154, 159                 | Anonymous              | 1944 c   |
|   | Clear water of slow moving streams or seepage pools,<br>under stones in wadi beds or on shore of lake; ---;<br>154                       | Kligler                | 1924     |
|   | Clear pools, fresh water; ---; 154, 159, 317   | Barraud                | 1921     |
|   | Swamp; ---; 154  | Kligler                | 1924 a   |
|   | ---; naturally infected with malaria, all year,<br>enter houses; 154   | Kligler & Liebman      | 1928     |
|   | ---; possible vector of malaria; 154   | Garrett-Jones          | 1962     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                       | DATE   |
|---|---|------------------------------|--------|
| <i>ANOPHELES superpictus</i> Grassi (cont.) | Springs, streams, foot prints in seepages, irrigation ditches, lakes, ponds, marshes; enters houses; 159  | Lumsden & Yofe               | 1950   |
|   | Stones, eddies, stagnant water; ---; 159. Stones, eddies, stagnant water; enters houses, attacks man, closely associated with malaria; 342°   | Buxton                       | 1924 a |
|   | Brackish puddles by seashore swamps; ---; 159   | Shapiro et al.               | 1944 + |
|   | Flooded meadows along rivers in foothills; ---; 162   | Balkashina                   | 1939   |
|   | ---; over winters, in houses, carrier of malaria; 162   | Vassiliev                    | 1913   |
|   | ---; ---; 162 (Shallow sunlit waters, gravelly and sandy riverbeds and ponds, valleys, snow run-offs; nocturnal, bites in and outdoors)   | Peus                         | 1942   |
|   | Streams with dense algae, irrigation ditches, sunlit water along pebbly banks of springs and mountain streams, depressions in sandy river shoals, flooded meadows, small pools; rarely enters houses; 166   | Petrishcheva & Polyakov      | 1940   |
|   | Mountains, cave; ---; 166   | Luppova                      | 1940   |
|   | Among stones at edges of pebbly temporary and permanent stream beds, sand pits, wells, seepage areas; bites by day and night, indoors and outdoors, June-Oct.; 174*, 302°   | Leeson                       | 1950 + |
|   | ---; wall holes, underground cavities; 174  | Sautet & Marneffe            | 1943 + |
|   | Floodlands of large rivers, stream banks and small rivers; ---; 256   | Beklemisheva & Zhelokhovtzev | 1945 + |
|   | ---; ---; 302, 317, 318, 326, 342, 345. ---; naturally infected with malaria; 151. Edges of streams and rivers, seepages and marshy areas, open irrigation channels, reservoirs, pools, wells, springs; naturally infected with malaria; 235 (Pools, beds of small stream rivers, irrigation system with flowing water, enters houses, bites man) | Covell                       | 1944   |
|   | Springs, rice fields; in houses and caves, July-Oct.; 303*  | Latuishev                    | 1929   |
|   | Swiftly flowing streams, small sheltered pools; malarial carrier during summer and autumn; 317  | Anonymous                    | 1944   |
|   | Slow running water in narrow valleys with little sun; in houses; 317  | Sabit                        | 1927 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE   |
|---|--|--------------------------------|--------|
| <i>ANOPHELES superpictus</i><br>Grassi<br>(cont.) | Rice fields, mountain brooks; in open land; 317  | Martini                        | 1928 a |
|   | River or seashore pools; ---; 317  | Vogel & Martini                | 1927 + |
|   | ---; mountain, July and Aug.; 317  | Atar Atamanoglu                | 1938   |
|   | Sun'sit spring water, pebbly banks of rivers and streams, gorges, caves, burrows; all year; 318  | Petrishcheva                   | 1934 a |
|   | Rice fields and ponds; June-Oct.; 326*   | Prokopenko                     | 1945   |
|   | Drainage ditches in creeks and swamps; ---; 326  | Ulitcheva                      | 1943   |
|   | ---; experimentally infected with malaria; 326   | Simanin                        | 1930   |
|   | Swamps, along shores with horizontal vegetation, gravel swamps, brackish water along banks of lakes and wadis; Sept., Oct.; 342  | Shapiro                        | 1933   |
|   | Slow flowing streams; ---; 342   | Stuart                         | 1933   |
|   | Clear, slow flowing streams; ---; 345*   | Zaitzev                        | 1934   |
|   | ---; ---; 350  | Christophers                   | 1920   |
|   | Streams; ---; 354  | Edwards                        | 1921 + |
| <i>superpictus berestnevi</i><br>Shingarev        | ---; ---; 162  | Peus                           | 1942   |
|   | ---; ---; 326  | Martini                        | 1930   |
| <i>superpictus vassilievi</i><br>Portschinsky     | ---; naturally infected with malaria; 162  | Vassiliev                      | 1913   |
| <i>taiwanensis</i><br>Koidzumi                    | ---; ---; 77   | Koidzumi                       | 1920   |
| <i>tessellatus</i><br>Theobald                    | Pools and disused wells; ---; 11   | Wilcocks                       | 1944   |
|   | ---; ---; 11, 59, 70, 76, 77, 139, 143, 144, 145, 146, 147, 149, 190, 242, 277 (Rice fields, pools in woods, grassy banks of running streams, swamps, brackish pools, river banks, bites man, experimentally infected with <i>Plasmodium vivax</i> ) | Bonne-Wepster & Swellen-grebel | 1953   |
|   | In sugarcane leaf axils; ---; 59. ---; rare; 143 (In houses)   | Christophers                   | 1916   |
|   | ---; Aug.-Oct., active at night; 59  | Macan                          | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                          | DATE     |
|---|---|---------------------------------|----------|
| <i>ANOPHELES tessellatus</i><br>Theobald<br>(cont.) | ---; ---; 59, 70, 76, 143, 145, 146, 149, 190, 277<br>(Along margins of streams, irrigation channels and<br>springs pools, in stream banks, in houses)  | Russell<br>et al.               | 1943     |
|   | Pools, rice fields, streams with vegetation; enters<br>houses; 76   | Chang                           | 1940     |
|   | Burrow pits, water holes; ---; 76   | Robertson                       | 1940     |
|   | Plain areas, in shallow ditches and swamps; ---; 76   | Feng                            | 1938     |
|   | ---; naturally infected with malaria; 76, 145, 337.<br>---; considered responsible for the transmission of<br>malaria; 191  | Boyd                            | 1949     |
|   | ---; malaria carrier; 76, 143, 144  | Faust                           | 1926 a   |
|   | ---; in houses, Sept.-Oct.; 76  | Chow &<br>Balfour               | 1949     |
|   | Small pools in sugarcane fields, fallow fields,<br>shallow ditches; ---; 77   | Chow                            | 1949 b   |
|   | ---; enter houses, naturally infected with malaria;<br>77°, 144. ---; naturally infected with malaria;<br>139, 145, 149. Pools; ---; 190. Shallow fresh<br>water wells; naturally infected with malaria; 191.<br>---; in houses; 337°. ---; ---; 366 (Buffalo<br>wallows, clear overgrown pools, rice fields, hoof<br>prints, containing saline water, enters houses) | Covell                          | 1944     |
|   | ---; ---; 133. ---; all year; 139   | Feng                            | 1937     |
|   | Tall weeds at edge of slowly flowing streams;<br>naturally infected with malaria, rare; 139   | Jackson                         | 1938     |
|   | ---; mornings in bamboo huts, at night in out-<br>buildings; 139  | Jackson                         | 1938 a   |
|   | ---; naturally infected with <i>Plasmodium</i> ; 139,<br>144, 337   | Hsiao                           | 1945     |
|   | ---; enters houses; 139   | Jackson                         | 1938 b + |
|   | Furrows in sugarcane and irrigation and seepage<br>channels, dirty stagnant water; enters houses; 143   | Christophers                    | 1933 +   |
|   | Outdoor wells; Oct.-Feb., rare; 143   | Russell &<br>Ramachandra<br>Rao | 1941     |
|   | Rocky drainage channel; ---; 143  | McCombie<br>Young &<br>Bailly   | 1928     |
|   | Beds of rivers; ---; 143  | Abraham &<br>Samuels            | 1944     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                    | DATE   |
|------------------------------|--|---------------------------|--------|
| <i>ANOPHELES tessellatus</i> | ---; Apr., June-July; 143  | Senior-White              | 1934   |
| Theobald<br>(cont.)          | Grassy streams and pools; November-April; 144  | Borel                     | 1926   |
|                              | ---; naturally infected with malaria; 144  | Gaschen                   | 1936   |
|                              | ---; all year, in houses; 144  | Raynal &<br>Gaschen       | 1935   |
|                              | Pools, buffalo wallows, light to medium shade or<br>none, with or without vegetation; ---; 145. Small<br>pools and drains, usually open to the sun and with<br>either clean or muddy water; ---; 190 | Colless                   | 1948   |
|                              | ---; possible vector of malaria; 145   | McArthur                  | 1950   |
|                              | ---; naturally infected with malaria; 146  | Farner et al.             | 1946 + |
|                              | ---; experimental vector of <i>Wuchereria bancrofti</i> ; 146  | Raghavan                  | 1961   |
|                              | ---; ---; 146*   | Manson-Bahr               | 1959   |
|                              | ---; naturally infected with malaria; 147  | Simmons                   | 1942 + |
|                              | ---; Mar. and June; 149  | Stanton                   | 1915   |
|                              | ---; ---; 158  | Yamada                    | 1925   |
|                              | Large swampy pools; ---; 190   | Lamborn                   | 1922 a |
|                              | Swamps; ---; 190   | Hodgkin<br>et al.         | 1935   |
|                              | ---; in houses, little associated with man; 190  | Wharton                   | 1953   |
|                              | ---; Apr.-July, Oct.-Dec.; 190   | Kingsbury                 | 1931   |
|                              | ---; Jan.-Mar.; 190  | Kingsbury                 | 1932   |
|                              | ---; ---; 191*   | Senior-White              | 1948   |
|                              | Streams, rice fields; ---; 235   | Strickland<br>& Chowdhury | 1927   |
|                              | ---; delta lowlands; 235   | Iyengar                   | 1930 + |
|                              | In rice fields, vegetated pools and stream beds<br>with vegetation; ---; 242   | Russell &<br>Baisas       | 1935   |
|                              | Grass along edges of irrigation canals, seepages;<br>---; 242  | Mieldazis                 | 1930   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|--|--|--|--|
| <i>ANOPHELES tessellatus</i><br>Theobald<br>(cont.)  | ---; in dark damp wells, along stream bank, in old stone wall with cracks and crevices; Oct.-Dec.; 242<br>---; naturally and experimentally infected with malaria; 242<br>Open and closed ditches, rice fields; in houses; 277   | Russell<br>Bohart<br>Causey  | 1931<br>1945<br>1937   |
| <i>tessellatus</i><br>var. <i>kalawara</i><br>Stoker &<br>Waktoedi                                 | ---; ---; 337  | Stone et al.   | 1959   |
| <i>tessellatus</i><br>var. <i>orientalis</i><br>Swellengrebel<br>& Swellen-<br>grebel-<br>de Graaf | ---; ---; 145, 147 (Clear water, ditches and pools with vegetation, vegetated margins of rivers, shaded or sunny)<br>---; ---; 146   | Bonne-Wepster<br>& Swellen-<br>grebel<br>Stone et al.  | 1953<br>1959   |
| <i>theobaldi</i><br>Giles  | ---; ---; 25<br>---; ---; 59, 242<br>---; ---; 122<br>Swampy ground, weedy water; experimentally infected with malaria; 143<br>Pools; enter houses; 143<br>Along margins of streams and in seepages; ---; 143<br>---; Oct.; 143 (Hill streams, seepages, tanks, pools in "nullahs", borrow pits, rock holes)<br>---; foothills to lowlands; 143, 235<br>---; Aug.-Sept.; 143<br>---; Jan.; 143<br>---; Dec.; 143 | Macan<br>Christophers<br>de Mello<br>Christophers<br>Strickland &<br>Chowdhury<br>Russell<br>et al.<br>Jaswant<br>Singh<br>Iyengar<br>Strickland &<br>Chowdhury<br>Perry<br>Abraham &<br>Samuels | 1942<br>1933 +<br>1934<br>1916<br>1927<br>1943<br>1933<br>1930 +<br>1930<br>1914<br>1944 |
| <i>thorntoni</i><br>Ludlow   | ---; ---; 77   | Faust  | 1926 a   |
| <i>tibani</i><br>Patton  | ---; ---; 2  | Stone et al.   | 1959   |
| <i>tonkinensis</i><br><i>umbrosus</i><br>Theobald  | Water pockets among tree roots; ---; 144   | Farner et al.  | 1946 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>ANOPHELES</i>   |   |   |  |
| <i>trimaculatus</i><br>Tsuzuki                                     | ---; ---; 77  | Stone et al.  | 1959   |
| <i>turkestanii</i><br>Shingarev                                    | ---; ---; 162   | Peus  | 1942   |
| <i>turkhudi</i><br>Liston  | Stream bed pools, river beds with vegetation; ---; 2<br>---; ---; 2, 143, 150, 270 (Rain pools with algae,<br>river beds, mountain stream pools, in houses)<br>---; ---; 3, 154, 332<br>Small pools, stream beds; ---; 25, 150<br>Large sandy river beds; common in houses,<br>experimentally infected with malaria; 143, 235<br>Pools or shallow seepages with vegetation, sandy<br>or stony river bed, stream, pools up to 4500 feet;<br>---; 143<br>Slow moving water in hilly river beds; ---; 143<br>---; forest, Mar.; 143<br>---; common; 143<br>---; ---; 150*<br>Swampy valley; ---; 159. Ponds and connecting<br>streams with green algae, water holes in the wadi<br>bed, algae-choked holes in rocks; ---; 342<br>Grass grown tanks; ---; 235<br>---; ---; 302, 317<br>Brackish water; ---; 342 | Evans<br>Russell<br>et al.<br>Stone et al.<br>Macan<br>Christophers<br>Boyd<br>Roy & Brown<br>Abraham &<br>Samuels<br>Christophers<br>Gutzevich<br>Austen<br>Sinton<br>Christophers<br>Christophers | 1938 +<br>1943<br>1959<br>1942<br>1916<br>1949<br>1954<br>1944<br>1921<br>1948 +<br>1919<br>1917<br>1920<br>1920 |
| <i>turkhudi</i><br>var. <i>azrikii</i><br>Patton                   | ---; ---; 2<br>---; ---; 25   | Saliternik &<br>Theodor<br>Smart  | 1942<br>1943   |
| <i>turkhudi</i><br><i>persicus</i><br>Edwards                      | ---; ---; 150<br>---; ---; 326  | Edwards<br>Shingarev  | 1921 +<br>1928   |
| <i>turkhudi</i><br>var. <i>telamali</i><br>Saliternik<br>& Theodor | Seepage water with vegetation; ---; 154   | Saliternik &<br>Theodor   | 1942   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                                | DATE   |
|---|--|---------------------------------------|--------|
| <i>ANOPHELES umbrosus</i><br>(Theobald) | Water pockets among tree roots, springs, deep lake;<br>---; 11, 143, 146, 190, 277°. Water with decaying<br>vegetation, jungle morasses, water pockets among tree<br>roots, springs, deep lakes; enters houses; 59°, 147°<br><br>---; ---; 11. ---; naturally infected with malaria;<br>145, 147, 149. Sunlit wells, stagnant pools, slowly<br>streaming morasses; experimentally and naturally<br>infected with malaria; 190°. Slow running stagnant<br>or clear water with or without vegetation, weedy<br>tanks; naturally infected with malaria; 337 (Bites<br>man, enters houses) | Farner et al.                         | 1946 + |
|   | Brackish grassy pools at fringe of mangrove regions;<br>---; 59, 277   | Covell                                | 1944   |
|   | Fresh and salt water, shaded pools; ---; 76*   | Lee &<br>Woodhill                     | 1944 + |
|   | Muddy pools with rotten vegetation; rare; 143.<br>---; carrier of malaria; 145   | Li & Wu                               | 1934 + |
|   | Muddy creek beds; ---; 143, 190  | Roy & Brown                           | 1954   |
|   | Peaty, stagnant pools; ---; 143, 145, 146, 190   | Boyd                                  | 1949 + |
|   | Shallow, muddy swamps with vegetation; June; 144   | Christophers                          | 1933 + |
|   | ---; enters houses; 143°, 144°, 145°, 146°<br>(Shaded stagnant pools and morasses in jungles,<br>brackish water, mangrove swamps)  | Russell<br>et al.                     | 1943   |
|   | ---; in houses, at hill streams during daytime,<br>naturally infected with malaria, Dec.-June; 145   | Borel                                 | 1930 a |
|   | ---; ---; 145*   | Roper                                 | 1914   |
|   | ---; ---; 145, 147 (Transmits malaria)   | McArthur                              | 1950   |
|   | Brackish water, sunlit springs, artificial containers, puddles, ponds, brooks with or without vegetation;<br>enters houses; 145, 146, 147*   | Wilcocks                              | 1944 d |
|   | Fresh and brackish shaded water, in mountain springs, brooks, in a grove area, palm pools, dirty slow-running forest brook; ---; 149°  | Farner                                | 1943   |
|   | ---; infected with malaria; 149. ---; ---; 190<br>(Jungle, pools, ditches in rubber plantations,<br>in jungle, enters houses, bites from dusk to dawn)   | Christophers                          | 1933 + |
|   | ---; March; 149  | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
|   | ---; ---; 149*   | Stanton                               | 1915   |
|   |  | Reid &<br>Hodgkin                     | 1950 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                         | DATE     |
|--|--|--------------------------------|----------|
| <i>ANOPHELES umbrosus</i><br>(Theobald)<br>(cont.) | Peaty water with much leaf mould; bite during the day in deep jungle shade, enter houses to bite in the evening; 190°  | Colless                        | 1948     |
|  | Jungle, swamps, deep drains; naturally infected with malaria, Aug.-Dec.; 190   | Kingsbury                      | 1936     |
|  | Slow moving shaded stagnant water; ---; 190*   | Russell                        | 1956     |
|  | ---; carrier of malaria; 190   | Watson                         | 1924     |
|  | Shaded stream; ---; 242  | Mieldazis                      | 1930     |
|  | ---; naturally infected and natural vector of <i>Wuchereria malayi</i> ; 277   | Raghavan                       | 1961     |
|  | Grassy margins of running streams; ---; 280  | Colless                        | 1957 a   |
| <i>vagus</i><br>Dönnitz                            | Shallow rain-filled puddles, hoof marks; ---; 11.<br>Shallow rain-filled puddles, hoof marks, grassy swamps, fallow rice fields; ---; 59, 143  | Christophers                   | 1933 +   |
|  | Rice fields; ---; 11. ---; ---; 59, 77, 147, 242, 366. ---; naturally infected with malaria; 143, 144. Brackish water; ---; 190. ---; rests on stream banks, naturally infected with malaria; 337 (Small pools and puddles, enters houses, rarely bites man) | Covell                         | 1944     |
|  | ---; ---; 11, 59, 70, 143, 144, 277. Stream banks; naturally infected with malaria; 337 (Natural and artificial waters, enters houses, experimentally infected with <i>Plasmodium falciparum</i> and <i>P. vivax</i> )                                       | Bonne-Wepster & Swellen-grebel | 1953     |
|  | Small pools and borrow pits with vegetation; enter houses at dawn; 59°   | Macan                          | 1950 a + |
|  | Stagnant water, stream beds; Feb.-Mar., Aug.-Dec.; 59  | Macan                          | 1948     |
|  | Surface wells, pools, ditches, artificial containers, drains; ---; 59  | Grewal                         | 1937 +   |
|  | ---; enters houses during daytime; 59  | Jones                          | 1949     |
|  | Excavations, pools, drains, irrigation ditches; enters houses; 76  | Chang                          | 1940     |
|  | Drains, grassy swamps, rice fields; ---; 76, 133, 139, 145, 149, 190   | Farner et al.                  | 1946 +   |
|  | Polluted muddy water, hoof marks; ---; 76  | Feng                           | 1936     |
|  | ---; in houses, July, Sept.-Dec.; 76   | Chow & Balfour                 | 1949     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                         | AUTHOR                    | DATE   |
|--|---|---------------------------|--------|
| <i>ANOPHELES</i><br><i>vagus</i><br>Dönnitz<br>(cont.) | ---; naturally infected with malaria; 76  | Feng                      | 1937   |
|  | Water holes; dry season and end of rainy season, March and Oct., in houses; 122                 | de Mello & Bras de Sa     | 1935   |
|  | Polluted water in pools, hoof prints; ---; 133  | Hsiao                     | 1945   |
|  | Small temporary grassy muddy pools and pools with rice stubble; ---; 139                        | Jackson                   | 1938   |
|  | Muddy and turbid waters, hoof marks and rain-water pools; all year, Oct., in houses; 143        | Russell & Ramachandra Rao | 1941   |
|  | Brackish water; open area outside the jungle; 143   | Iyengar                   | 1930 b |
|  | Stagnant muddy pools, surface drains, and tanks; ---; 143                                       | McCombie Young & Bailly   | 1928   |
|  | Rain-water puddles; ---; 143  | Roy                       | 1931   |
|  | Ditches and ponds; ---; 143   | Iyengar                   | 1931 a |
|  | Rice fields; ---; 143   | Abraham & Samuels         | 1944   |
|  | In lake; ---; 143   | Senior-White & Adhikari   | 1939   |
|  | ---; experimentally and naturally infected with malaria; 143. Open and closed ditches; ---; 277 | Causey                    | 1937   |
|  | ---; all year; 143  | Senior-White              | 1934   |
|  | ---; naturally infected and natural vector of <i>Wuchereria bancrofti</i> ; 143, 146            | Raghavan                  | 1961   |
|  | Small shallow ponds without vegetation; common, enters houses at night; 144                     | Borel                     | 1926 c |
|  | Small, sunny pools with or without grass; all year; 144   | Borel                     | 1926   |
|  | Swamps, irrigation canals or rice fields; ---; 144  | Wilcocks                  | 1944 c |
|  | Footprints of animals; ---; 144   | Borel                     | 1926 b |
|  | ---; naturally infected with malaria; 144   | Raynal & Gaschen          | 1935   |
|  | ---; experimentally infected with <i>W. malayi</i> ; 144  | Galliard                  | 1938 + |
|  | ---; ---; 144*  | Toumanoff                 | 1932 b |
|  | ---; ---; 144°  | Toumanoff                 | 1935 a |
|  | Hot spring in a swamp, ditch; ---; 145, 146, 149, 337   | Brug                      | 1931 a |
|  | ---; ---; 146*  | Manson-Bahr               | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|--|---|------------------------|--------|
| <i>ANOPHELES</i><br><i>vagus</i><br>Dönnitz<br>(cont.) | Pools, borrow pits, drains, hoof marks, grassy swamps, rice fields, occasionally brackish waters; ---; 147  | Knight et al.          | 1944 + |
|  | Small pools; along the banks of swamps, all year; 190   | Hacker                 | 1923   |
|  | Ponds, small muddy pools; ---; 190  | Lamborn                | 1922 a |
|  | Low swampy areas; common in Dec.; 190   | Hodgkin & Johnston     | 1935   |
|  | ---; experimentally infected with <i>Plasmodium falciparum</i> ; 190  | Kingsbury              | 1932   |
|  | ---; experimentally infected with <i>P. vivax</i> ; 190   | Green                  | 1935   |
|  | ---; experimentally infected with <i>W. bancrofti</i> ; 190   | Hodgkin                | 1938 + |
|  | ---; experimentally infected with malaria; 190  | Kingsbury              | 1931   |
|  | ---; bites man by night; 190°   | Nair                   | 1947 + |
|  | ---; enters houses; 190   | Wharton                | 1953   |
|  | Reservoirs, borrow pits; enters houses; 235   | Das                    | 1943 + |
|  | ---; Dec.; 235  | Strickland & Chowdhury | 1927   |
|  | Pools in stream and river beds, rice paddies, stagnant pools in ditches, muddy water in hoof prints, grass along edges of irrigation canals; ---; 242 | Mieldazis              | 1930   |
|  | ---; in houses at night, day-time resting in stream bank, Oct.-Dec.; 242  | Russell                | 1931   |
|  | ---; naturally infected with sporozoites; 242   | Dy & Gapuz             | 1948   |
|  | ---; naturally infected with malaria, June; 242   | Manalang               | 1931   |
|  | Weedy canals and ponds, rice fields with running water; Oct.-Nov.; 277  | Barraud & Christophers | 1931   |
|  | Blind ends of waterways; ---; 277   | Wilcocks               | 1944 b |
|  | Pools, drains, swamps, ponds, rice fields, seepages, wells, polluted brackish water; ---; 337*  | Gater                  | 1934 + |
|  | ---; ---; 349   | de Melio & Afonso      | 1921 + |
| <i>vagus</i><br><i>albino</i><br>Stoker &<br>Waktoedi  | ---; ---; 337   | Stone et al.           | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(SPECIAL STATEMENTS)   | AUTHOR                         | DATE   |
|--|---|--------------------------------|--------|
| <i>ANOPHELES</i><br><i>vagus</i><br><i>limosus</i><br>King | Small open muddy pools, wheel ruts, buffalo wallow;<br>---; 145, 242  | Colless                        | 1948   |
|  | ---; ---; 145, 242 (Small open, muddy pools, newly plowed rice fields, muddy slow flowing ditches, wells, stream banks, in houses at night)                                   | Bonne-Wepster & Swellen-grebel | 1953   |
|  | Rice fields and slow-flowing ditches; ---; 242  | Russell & Baisas               | 1935   |
| <i>vagus</i><br><i>vagus</i><br>Dönnitz                    | ---; ---; 59, 70, 76, 143, 144, 190 (Small pools and puddles near houses). ---; naturally infected with malaria; 143  | Russell et al.                 | 1943   |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 143  | Manson-Bahr                    | 1959   |
|  | ---; ---; 143*  | Geigy & Herbig                 | 1955   |
| <i>varius</i><br>Walker                                    | Ubiquitous, artificial containers; anthropophilic, in houses, infected with <i>Wuchereria malayi</i> ; 145*   | Bonne-Wepster & Swellen-grebel | 1953   |
| <i>varuna</i><br>Iyengar                                   | ---; ---; 59, 70, 76, 366. ---; naturally infected with malaria; 143 (Stagnant pools, ditches, wells, slow-running streams and irrigation channels, enters houses, bites man) | Covell                         | 1944   |
|  | Pits, cisterns with grassy margins, shores of brooks and rivers; end of rain season, near houses; 122   | de Mello & Bras de Si          | 1935   |
|  | Storm water by roadsides, stagnant fresh water ditches; during and soon after monsoon; 143  | Iyengar                        | 1924   |
|  | Shady clear ponds; ---; 143   | Iyengar                        | 1930 a |
|  | Weed-covered tanks; ---; 143  | Senior-White et al.            | 1943   |
|  | ---; rare in houses; 143°   | Senior-White & Venkat Rao      | 1943   |
|  | ---; experimentally infected and experimental vector of <i>Wuchereria bancrofti</i> , naturally infected with <i>W. malayi</i> ; 143  | Raghavan                       | 1961   |
|  | ---; experimentally infected with <i>Plasmodium falciparum</i> , <i>P. vivax</i> and <i>P. malaria</i> ; 143  | Iyengar                        | 1933   |
|  | ---; carrier of malaria; 143  | Roy & Brown                    | 1954   |
|  | ---; hills; 143*  | Senior-White                   | 1948   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                                | DATE   |
|--|--|---------------------------------------|--------|
| <i>Anopheles varipes</i><br>Iyengar<br>(cont.) | ---; all year, enters houses; 14°  | Russell &<br>Ramadandra<br>Rao        | 1941   |
|  | ---; ---; 218  | Stone et al.                          | 1959   |
|  | Ponds in lowlands, wells in dry region; ---; 235   | Iyengar                               | 1930 + |
|  | ---; ---; 349  | de Mello                              | 1938   |
| <i>vassilievii</i><br>Portschinsky             | ---; ---; 162, 326   | Stone et al.                          | 1959   |
| <i>venustus</i><br>Bonne-Wepster               | ---; naturally and experimentally infected with<br><i>Wuchereria mclayi</i> , common in rainy season; 145°               | Kariadi                               | 1941 + |
|  | ---; naturally infected with malaria; 145, 146°<br>(Deep swamps, rice fields, borrow pits, brackish<br>water, in houses) | Bonne-Wepster<br>& Swellen-<br>grebel | 1953   |
| <i>vexans</i><br><i>bactrianus</i><br>Olsuf'ev | ---; ---; 294  | Olsuf'ev                              | 1941 + |
| <i>vexans</i><br><i>nipponii</i><br>(Theobald) | ---; ---; 76, 168, 257, 259  | Stone et al.                          | 1959   |
| <i>watsonii</i><br>(Leicester)                 | ---; in mountains at 7000 feet elevation; 145°   | Edwards                               | 1926   |
|  | Dead split or hollow bamboos in deep shade; jungle;<br>190   | Russell<br>et al.                     | 1943   |
|  | Fallen bamboos, pools of water containing decaying<br>leaves and on the trunk of fallen trees; ---; 190                  | Kingsbury                             | 1936   |
| <i>wellingtonianus</i><br>Alcock               | Pools, jungle streams at 4000 feet elevation; rarely<br>in houses; 190   | Russell<br>et al.                     | 1943   |
| <i>willmori</i><br>James                       | Streams; in houses, along foothills up to 6000 feet<br>elevation; 31°. Streams; in houses; 143°, 235°                    | Christophers                          | 1916   |
|  | ---; ---; 76   | Faust                                 | 1926   |
|  | ---; ---; 77   | Secrete                               | 1916 + |
|  | Hill streams; June; 143  | Senior-White                          | 1928   |
|  | ---; ---; 144  | Toumanoff                             | 1933   |
|  | Water with free current; ---; 190  | Lamborn                               | 1922 a |
|  | ---; ---; 218  | Kumm                                  | 1929 + |
|  | Grassgrown ditch with running water; rare, June-Oct.; 235°   | Sinton                                | 1917   |
|  | Mountain stream; enters houses; 277°   | Barnes                                | 1923   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR             | DATE   |
|---|---|--------------------|--------|
| <i>ANOPHELES</i>                        |   |                    |        |
| <i>yatsushiroensis</i><br>Miyazaki      | ---; ---; 158   | Stone et al.       | 1959   |
| <i>ARMIGERES</i>                        |   |                    |        |
| <i>annulipalpis</i><br>(Theobald)       | ---; ---; 59, 143, 149<br>Bamboo stumps; ---; 76°   | Barraud            | 1934   |
|   | Bamboo stumps; ---; 145   | Chow               | 1949 c |
|   |   | Brug               | 1939   |
| <i>annulitarsis</i><br>(Leicester)      | ---; ---; 77, 144, 149. Bamboo stumps; ---; 143, 190<br>Hollow bamboo stalk; ---; 144   | Barraud            | 1934   |
|   | ---; ---; 277   | Borel              | 1930 a |
|   |   | Stone et al.       | 1959   |
| <i>apicalis</i><br>(Theobald)           | ---; ---; 59  | Edwards            | 1922 c |
|   | ---; ---; 143   | Senior-White       | 1922   |
| <i>apoensis</i><br>Bohart &<br>Farner   | River; at 7000-8000 feet elevation; 242   | Delfinado          | 1966   |
| <i>aureolineatus</i><br>(Leicester)     | Coconut shells; ---; 70<br>---; Sept.-Oct., 70, 143, 190  | Senior-White       | 1920 a |
|   | Coconut shells; ---; 76   | Barraud            | 1927   |
|   | ---; ---; 143, 145, 190 (Coconut shells)  | Bohart             | 1946   |
|   | Hollow bamboo stalks; ---; 144  | Barraud            | 1934   |
|   | Coconut shells; ---; 144, 190   | Borel              | 1930   |
|   | ---; ---; 242   | Hsiao              | 1945   |
|   |   | Bohart &<br>Farner | 1944   |
| <i>baisasi</i><br>Stone &<br>Thurman    | Bamboo joints, tree holes, coconut shells and<br><i>Alocasia</i> axils and tree fern stumps, artificial<br>containers; ---; 242 | Delfinado          | 1966   |
| <i>bhayungi</i><br>Thurman &<br>Thurman | ---; ---; 277   | Stone et al.       | 1959   |
| <i>brevitibia</i><br>Edwards            | ---; ---; 145   | Edwards            | 1914 a |
| <i>candelabriger</i><br>Brug            | Cut bamboo stumps, tree holes; ---; 145   | Brug               | 1939   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR            | DATE   |
|--|---|-------------------|--------|
| <i>ARMIGERES</i><br><i>cingulatus</i><br>(Leicester) | ---; ---; 143, 190  | Barraud           | 1927   |
|  | Hollow bamboo stalks; ---; 144  | Borel             | 1930 a |
|  | ---; ---; 145, 149  | Edwards           | 1922 c |
| <i>confusus</i><br>Edwards                           | Bamboo stumps; ---; 145, 149  | Brug              | 1931 a |
|  | ---; ---; 190   | Brug &<br>Edwards | 1931   |
| <i>conjugens</i><br>Edwards                          | ---; ---; 145   | Edwards           | 1914 a |
|  | ---; ---; 190   | Edwards           | 1928   |
|  | ---; on wild ginger plants; 280   | Colless           | 1957 a |
| <i>denbestini</i><br>Brug                            | Stagnant, slow-running water with debris, hollow<br>tree trunks, tree holes, bamboo stumps, coconut<br>shells; ---; 147 | Lee               | 1944   |
|  | Leaf axils of sago palm; ---; 147   | Knight<br>et al.  | 1944 + |
| <i>dentatus</i><br>Barraud                           | ---; ---; 143   | Barraud           | 1927   |
| <i>digitatus</i><br>(Edwards)                        | ---; ---; 143, 149 (Bamboos)  | Barraud           | 1934   |
|  | ---; ---; 146, 190  | Brug &<br>Edwards | 1931   |
|  | Tree holes, bamboo stumps; ---; 242. ---; ---; 277  | Bohart            | 1945   |
| <i>dolichocephalus</i><br>Leicester                  | ---; ---; 144   | Borel             | 1930 a |
|  | ---; ---; 149   | Brug &<br>Edwards | 1931   |
|  | Bamboos; ---; 190   | Edwards           | 1923 + |
| <i>durhami</i><br>Edwards                            | ---; ---; 146, 149, 190   | Brug &<br>Edwards | 1931   |
| <i>ejercitoi</i><br>Baisas                           | Tree holes; ---; 242  | Bohart            | 1945   |
| <i>flavus</i><br>(Leicester)                         | ---; ---; 59, 144, 145, 146, 149, 190, 277 (Bamboo<br>stumps, fallen split Bamboo and tree holes)                       | Delfinado         | 1966   |
|  | Bamboo stumps; ---; 76°   | Chow              | 1949 c |
|  | Bamboo stumps; ---; 77  | Chow              | 1950   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                       |
|---|--|---|--|
| <i>ARMIGERES</i><br><i>flavus</i><br>(Leicester)<br>(cont.) | Bamboo stump; ---; 143, 145, 146, 149, 277<br>Hollow bamboo stalks; ---; 144<br>---; vicious day biter; 146°, 149°<br>Bamboo, coconut shells, tree holes, pitcher plants;<br>---; 242<br>Bamboos, coconut shells, pitcher plants; ---; 280 | Brug<br>Borel<br>Edwards<br>Bohart<br>Barraud   | 1931 a<br>1930 a<br>1932 +<br>1945<br>1934 |
| <i>foliatus</i><br>Brug                                     | Bamboo stumps; ---; 149  | Brug  | 1931 a                                     |
| <i>giveni</i><br>Edwards                                    | ---; ---; 190<br>Pitcher plants; ---; 280  | Edwards   | 1928<br>1926 +                             |
| <i>hybridus</i><br>Edwards                                  | ---; ---; 145<br>---; on ginger plants; 280  | Edwards<br>Colless                              | 1914 a<br>1957 a                           |
| <i>inchoatus</i><br>Barraud                                 | Bamboo stumps; ---; 143<br>Bamboos; ---; 143<br>---; ---; 277  | Barraud<br>Barraud<br>Causey                    | 1927<br>1934<br>1937                       |
| <i>joloensis</i><br>(Ludlow)                                | Coconut shells, tin cans, cut bamboo and elephant ear<br>axils; bite during daytime in the jungle; 242°<br>---; ---; 242   | Delfinado<br>Rozeboom &<br>Cabrera              | 1966<br>1964                               |
| <i>jugraensis</i><br>(Leicester)                            | Hollow of fallen tree; ---; 145<br>---; ---; 146<br>---; March; 149<br>Water collected in fallen leaves in jungle, bamboos;<br>---; 190  | Brug<br>Brug &<br>Edwards<br>Stanton<br>Edwards | 1924<br>1931<br>1915<br>1917 +             |
| <i>kuchingensis</i><br>Edwards                              | ---; ---; 11<br>---; -- ; 59, 70, 76, 143, 149, 190 (Tree holes,<br>bamboos, artificial containers with foul water)<br>Bamboo stumps; ---; 76°<br>Hollow bamboo stalks; ---; 144   | Barraud<br>Barraud<br>Chow<br>Borel             | 1927<br>1934<br>1949 c<br>1930 a           |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                   |
|---|--|---|--|
| <i>ARMIGERES kuchingensis</i><br>Edwards<br>(cont.)   | ---; ---; 145<br><br>Ground and rock pools of mountain streams, occasionally Causey in artificial containers; March; 277   | Edwards                                       | 1915<br>1937                           |
|   | Artificial containers; ---; 280  | Colless                                       | 1957 a                                 |
| <i>kuchingensis</i><br>var. <i>javanensis</i><br>Brug | Holes in fallen trees, fern-tree stumps; ---; 146  | Brug  | 1939                                   |
| <i>longipalpis</i><br>(Leicester)                     | ---; ---; 77<br><br>---; ---; 143, 145, 149, 190 (Bamboos)   | Secrete<br>Barraud                            | 1916 +<br>1934                         |
| <i>magnus</i><br>(Theobald)                           | ---; ---; 59, 70, 139, 143, 144, 145, 146, 190, 277 (Tree holes and bamboo joints, bite freely during the day in bamboo groves)<br><br>Bamboo stumps; ---; 76°, 139°<br><br>Pitcher plants; ---; 76  | Delfinado                                     | 1966                                   |
|   | Bamboo stumps; ---; 77<br><br>Bamboo stumps, rare in tree holes; bite rather severe; 143°<br><br>Pitcher plants; ---; 143, 144, 190  | Chow<br>Bohart                                | 1949 c<br>1946                         |
|   | ---; ---; 149  | Brug & Edwards                                | 1931                                   |
|   | Pitcher plants, tree holes, bamboo joints; ---; 242<br><br>---; bites freely in bamboo groves during day and night; 242°   | Bohart  | 1945<br>1964                           |
| <i>maiae</i><br>Edwards                               | ---; in jungle; 190  | Edwards                                       | 1917 +                                 |
| <i>malayi</i><br>(Theobald)                           | Foul water in artificial containers; ---; 76<br><br>---; ---; 76, 143, 145, 190, 242, 277 (Tree holes, bamboo stumps, coconut shell and axils of fallen Areca palm leaves)<br><br>Coconut shells; ---; 145, 146, 147, 149, 190, 242<br><br>Coconut shells, artificial containers, sunny or shaded polluted water; ---; 242<br><br>Tree holes, bamboo joints, axils of fallen palm leaves; ---; 242 | Bohart<br>Delfinado<br>Brug<br>Bick<br>Bohart | 1946<br>1966<br>1931 a<br>1949<br>1945 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE                                       |
|--|--|--|--|
| <i>ARMIGERES malayi</i><br>(Theobald)<br>(cont.) | ---; Aug.; 242<br>Pitcher plants; ---; 280   | Dyar & Shannon<br>Edwards  | 1925<br>1934 +                             |
| <i>manalangi</i><br>Baisas                       | Bamboo stumps; ---; 242  | Delfinado  | 1966                                       |
| <i>maximus</i><br>Edwards                        | ---; ---; 146, 149, 190  | Stone et al.   | 1959                                       |
| <i>mjobergi</i><br>Edwards                       | ---; in mountains; 145   | Edwards  | 1926                                       |
| <i>moultoni</i><br>Edwards                       | ---; ---; 144°<br>---; ---; 145<br>---; ---; 146, 149, 190   | Borel<br>Stone et al.<br>Brug & Edwards                                    | 1930 a<br>1959<br>1931                     |
| <i>obturbans</i><br>(Walker)                     | ---; ---; 59, 70, 76, 143, 147, 149, 158, 190<br>(Tree holes, bamboos, artificial containers often with foul water)<br><br>Artificial containers, coconut shells, tree holes; all year, enters houses; 70°<br><br>Bamboo stumps; ---; 70<br><br>---; naturally infected with <i>Wuchereria malayi</i> and <i>W. bancrofti</i> ; 70. ---; naturally infected with <i>W. bancrofti</i> ; 191<br><br>---; naturally infected with filaria; 70 | Barraud<br>Senior-White<br>Wijesundara<br>Carter<br><br>Dassanayake & Chow | 1934<br>1920 a<br>1942<br>1948<br><br>1954 |
|  | Artificial containers, pits with polluted water in shade; common, July-Aug., enters houses, bites at night and in deep shade by day; 76°<br><br>Bamboo stumps, artificial containers, polluted waters; ---; 76<br><br>Feces-polluted rainwater in neglected fertilizer pits and containers; ---; 76  | Tseng & Wu<br>Chang<br>Meng  | 1951<br>1939<br>1943                       |
|  | Jungle, mountains, lowlands; ---; 76<br><br>Latrines, tree holes; ---; 76. Small pools and contaminated drains; all year; 143°. Latrines, bamboo stumps, tree holes; ---; 144  | Li & Wu<br>Roy & Brown   | 1935 b +<br>1954                           |
|  | Collections of stagnant water; ---; 76<br>---; carrier of dengue; 76, 77, 158  | Feng<br>Faust  | 1932<br>1926 a                             |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                | DATE     |
|---|--|-----------------------|----------|
| <i>ARMIGERES obturbans</i><br>(Walker)<br>(cont.) | ---; experimentally infected with <i>Wuchereria malayi</i> ; 76  | Hu                    | 1941 +   |
|   | ---; in flat regions; 76   | Feng                  | 1935     |
|   | ---; Sept.; 76   | Hu                    | 1940     |
|   | ---; experimental transmission of dengue; 77, 158  | Barraud               | 1928 b   |
|   | ---; ---; 139°   | Jackson               | 1936     |
|   | ---; ---; 139  | Toumanoff             | 1935     |
|   | In artificial containers; ---; 143   | Liston &<br>Akula     | 1913 +   |
|   | Bamboo traps; ---; 143   | Fletcher              | 1917     |
|   | ---; naturally and experimentally infected with <i>W. malayi</i> ; 143   | Iyengar               | 1938 +   |
|   | ---; bites by day; 143°  | MacGilchrist          | 1913 +   |
|   | ---; enters houses; 143  | Iyengar               | 1933 a   |
|   | Tripids, rockholes with polluted water; common on islets; 144  | Galliard<br>& Ngu     | 1950     |
|   | ---; in forest, bites in and outdoors; 144°  | Toumanoff             | 1935 a   |
|   | ---; in houses, all year; 144  | Borel                 | 1926     |
|   | <i>Colocasia indica</i> , coconut, rotting Pisang stump, artificial containers; in houses, bites especially at dusk; 145, 146, 147, 149, 158 | Brug                  | 1931 a   |
|   | <i>Colocasia</i> , coconut shells; ---; 145, 147, 149.<br>Leaf axils, pools; ---; 146  | Brug                  | 1931 a + |
|   | Cesspools; ---; 158  | Sasa &<br>Sabin       | 1950     |
|   | ---; experimentally transmits Japanese "B" encephalitis; 158   | Hammon                | 1949 +   |
|   | ---; experimental transmission of West Nile virus; 158   | Kitaoka               | 1950     |
|   | ---; July-Aug.; 158  | Mitamura &<br>Kitaoka | 1950     |
|   | ---; enters houses; 158  | Lamborn               | 1922     |
|   | Night soil containers, foul water; enters houses, possible vector of Japanese "B" encephalitis; 168°   | Barnett &<br>Toshioka | 1951     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>ARMIGERES obturbans</i><br>(Walker)<br>(cont.) | Artificial containers; enters houses; 190°<br>Sewage disposal system; ---; 190 (Carrier of dengue)<br>Coconut shells, artificial containers, exposed or shaded, with polluted water; ---; 242<br>Tree holes, bamboo holes; ---; 242<br>Highly polluted water rich in decaying organic matter; outbuildings, enters houses; 277°<br>Artificial containers; ---; 277   | Milne<br>Gater<br>Bick<br>Bohart<br>Causey<br>Barraud & Christophers | 1933<br>1929<br>1949<br>1945<br>1937<br>1931 |
| <i>omissus</i><br>(Edwards)                       | Bamboo stumps; ---; 70<br>Leaf bases of <i>Colocasia</i> ; ---; 77<br>---; ---; 143 (Bamboo stumps)<br>Bamboos; ---; 242   | Wijesundara<br>Chow<br>Barraud<br>Delfinado                          | 1942<br>1950<br>1934<br>1966                 |
| <i>pectinatus</i><br>Edwards                      | ---; bites man during hot hours of the day; 144°<br>---; ---; 145, 190   | Borel<br>Edwards   | 1930 a<br>1922 c                             |
| <i>pendulus</i><br>Edwards                        | ---; ---; 190  | Edwards  | 1922 c                                       |
| <i>setifer</i><br>Delfinado                       | ---; ---; 242  | Delfinado  | 1966   |
| <i>spathulatus</i><br>Brug                        | Beached canoe; ---; 147  | Brug   | 1939   |
| <i>subalbatus</i><br>(Coquillett)                 | ---; ---; 59, 144, 277. Foul water in artificial containers and cut bamboo; ---; 158°<br>---; ---; 70, 143, 149, 158, 190. Polluted water in artificial containers, cut bamboo, taro axils, tree holes; bites in shade during day, enters houses in the evening to bite, among vegetation, on damp rocks, livestock sheds; 257° (Naturally infected with <i>Wuchereria bancrofti</i> )<br>Foul water in artificial containers polluted with garbage or fecal matter; suspected to be a carrier of <i>W. bancrofti</i> ; 76°<br>Latrines, fecal tanks; bites day and night; 76° | Hsiao & Bohart<br>Bohart & Ingram<br>Bohart                          | 1946<br>1946<br>1946                         |
|   |  | Chow   | 1949 c                                       |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                                 | DATE           |
|--|--|--|----------------|
| <i>ARMIGERES</i><br><i>subalbatus</i><br>(Coquillett)<br>(cont.) | Fertilizer pits; predaceous, naturally infected with <i>W. bancrofti</i> , anthropophilic, common, enters houses; 76   | Hsiao                                  | 1945           |
|  | Bamboo stumps, artificial containers, fecal tanks; common; 77  | Chow                                   | 1950           |
|  | Tanks, bamboo stumps, artificial containers, water with organic matter; enters houses in evening, all year; 158°. ---; ---; 168  | La Casse & Yamaguti                    | 1950           |
| <i>theobaldi</i><br>Barraud                                      | ---; ---; 59   | Barraud                                | 1934           |
|  | In flowers of <i>Curcuma pseudomontana</i> ; ---; 143  | Chari                                  | 1940           |
|  | ---; ---; 144  | Borel                                  | 1930 a         |
| <i>treubii</i><br>(de Meijere)                                   | ---; ---; 145  | Brug                                   | 1934           |
|  | Pitcher plants; ---; 146   | Edwards                                | 1923 +         |
|  | ---; March; 277  | Causey                                 | 1937           |
| <i>ventralis</i><br>(Walker)                                     | ---; ---; 70   | Carter                                 | 1950 a         |
|  | ---; ---; 76   | Stanley                                | 1913           |
| <i>BIRONELLA</i><br><i>bironelli</i><br>(Christophers)           | ---; ---; 147  | Stone et al.                           | 1959           |
| <i>gracilis</i><br>Theobald                                      | Sago swamps, pools with decaying vegetation; ---, 147<br>---; ---; 147, 190 (Deep jungle forest shaded pools and puddles of rainwater, in and on banks of rivers, bites man) | Boyd<br>Bonne-Wepster & Swellen-grebel | 1949 +<br>1953 |
| <i>papuae</i><br>(Swellengrebel & Swellengrebel-de Graaf)        | ---; ---; 147  | Stone et al.                           | 1959           |
| <i>travestita</i><br>(Brug)                                      | ---; ---; 147 (Pools in jungle, sago woods)  | Bonne-Wepster & Swellen-grebel         | 1953           |
| <i>COQUILLETTIDIA</i><br><i>aureosquamata</i><br>(Ludlow)        | ---; ---; 149, 190, 242 (Forest swamp breeder)   | Delfinado                              | 1966           |
| <i>crassipes</i><br>(van der Wulp)                               | ---; ---; 59, 70, 143, 145, 242, 257, 277.<br>Swamps; ---; 190   | Delfinado                              | 1966           |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR             | DATE   |
|---|---|--------------------|--------|
| <i>COQUILLETTIDIA</i><br><i>nigrosignata</i><br>(Edwards) | ---; ---; 242   | Delfinado          | 1966   |
| <i>ochracea</i><br>Theobald                               | ---; ---; 143, 158, 242   | Delfinado          | 1966   |
| <i>CULEX</i><br><i>ager</i><br>Giles                      | Shallow pools with decomposing vegetation, floating algae; ---; 190   | Smart              | 1914   |
|   | ---; ---; 242   | Bezzi              | 1913   |
| <i>alienus</i><br>Colless                                 | ---; ---; 145, 280  | Colless            | 1957   |
| <i>alis</i><br>Theobald                                   | Swamps; ---; 78   | Knight<br>et al.   | 1944   |
|   | ---; naturally infected with <i>Wuchereria bancrofti</i> , vector of nocturnal filariasis; 145*   | Manson-Bahr        | 1959   |
|   | ---; ---; 146   | Edwards            | 1922   |
|   | ---; ---; 147   | Stone et al.       | 1959   |
|   | ---; ---; 242   | Bezzi              | 1913   |
| <i>annulatus</i><br>Theobald                              | ---; ---; 76  | Faust              | 1926 a |
| <i>annuliorius</i><br>Theobald                            | ---; ---; 242   | Bezzi              | 1913   |
| <i>annulirostris</i><br>Skuse                             | ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 145   | Brug               | 1937   |
|   | ---; vector of nocturnal filariasis; 145*   | Manson-Bahr        | 1959   |
|   | ---; ---; 147, 149  | Bohart &<br>Ingram | 1946   |
|   | Fresh and brackish ground pools, artificial containers, running water, concrete drain; ---; 242°  | Bohart             | 1945   |
|   | Brackish marsh: light trap; 242. ---; ---; 242, 337 (Breed in fresh and strongly brackish, clear or very high organic content, pools, fish ponds, near shore and salt beds) | Delfinado          | 1966   |
| <i>annulus</i><br>Theobald                                | Rice fields; on windows, Feb., May; 76. ---; ---; 139   | Riley              | 1932   |
|   | ---; ---; 76, 146, 190, 242, 277 (In fresh and salt water, common in pools affected by tide water). Rice fields; ---; 242   | Delfinado          | 1966   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|--|--|---|--|
| <i>CULEX annulus</i><br>Theobald<br>(cont.)        | ---; ---; 77. ---; rare; 168<br>---; July, Aug.; 158<br>---; enters houses; 158<br>Hyacinth ponds, artificial containers, sometimes in brackish water; ---; 280  | Yamada<br>Mitamura et al.<br>Mitamura & Kitacka<br>Colless  | 1928<br>1950<br>1950<br>1957 a   |
| <i>antennatus</i><br>(Becker)                      | ---; ---; 154<br>---; rare; 342  | Stone et al.<br>Kirkpatrick   | 1959<br>1925 +   |
| <i>apicalis</i><br>Adams                           | Reservoirs with green vegetation, under the sun and shaded reservoirs in forest bushes; ---; 35, 118, 256, 321<br>Wooden reservoirs with cold water in bushes; ---; 35, 118, 256, 321<br>Brooks; ---; 150<br>Heavily shaded pool; May; 154<br>Swamps, borrow pits, streams, artificial containers; ---; 256<br>Springs, shaded pools; ---; 256<br>---; experimentally infected with Tularemia; 256<br>---; ---; 303<br>---; ---; 317<br>---; rare; 321<br>Shaded clear cold water; ---; 326<br>---; ---; 342<br>---; ---; 345<br>---; ---; 354 | Monchadskii<br>Shtakelberg<br>Gutzevich<br>Buxton<br>Gutzevich<br>Martini<br>Bozhenko<br>Keshish'yan<br>Anonymous<br>Rybinsky<br>Lisova<br>Anonymous<br>Mess<br>Edwards | 1936<br>1937<br>1948 +<br>1924 a<br>1937<br>1925<br>1937 +<br>1941 +<br>1944<br>1933<br>1932<br>1944 c<br>1940<br>1921 + |
| <i>apicalis</i><br>var. <i>judaicus</i><br>Edwards | ---; ---; 256, 342. Grottoes; ---; 317   | Martini   | 1931   |
| <i>arboreus</i><br>Salem                           | ---; ---; 332  | Stone et al.  | 1959   |
| <i>argentinotus</i><br>Banks                       | ---; ---; 242  | Bezzi   | 1913   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                            | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                            | DATE                   |
|------------------------------------|---|-----------------------------------|------------------------|
| <i>CULEX aurantapex</i><br>Edwards | ---; ---; 76<br>---; ---; 190   | Bohart<br>Stone et al.            | 1946<br>1959           |
| <i>bahri</i><br>(Edwards)          | ---; ---; 70<br>---; ---; 146   | Barraud<br>Barraud                | 1924 d<br>1934         |
| <i>bailyi</i><br>Barraud           | ---; ---; 70<br>---; ---; 143   | Carter<br>Barraud                 | 1950 a<br>1934         |
| <i>barraudi</i><br>Edwards         | ---; ---; 70, 143 (Ground pools, marshes)<br>Tanks; March-Apr., Jul.; 143   | Barraud<br>Senior-White           | 1934<br>1928 a         |
|                                    | ---; Apr.-May, at 5000 feet; 143. ---; 7000 feet elevation; 235   | Barraud                           | 1924 b                 |
| <i>bernardi</i><br>Borel           | Small, shady swamps; ---; 144<br>Forest; ---; 144   | Borel<br>Borel                    | 1930 a<br>1927 +       |
| <i>bijumatus</i><br>Edwards        | ---; ---; 146   | Stone et al.                      | 1959                   |
| <i>birui</i><br>Theobald           | ---; ---; 76  | Faust                             | 1926 a                 |
| <i>bitaeniorhynchus</i><br>Giles   | ---; ---; 59, 77, 143, 158, 190 (Open weedy pool)<br>Ravine, dirty well, swamp, river, paddy; ---; 70<br>---; naturally infected with <i>Wuchereria malayi</i> ; 70 | Barraud<br>Senior-White<br>Carter | 1934<br>1920 a<br>1948 |
|                                    | Fresh and clean natural water with filamentous green algae; bites during the night, infected experimentally with <i>Wuchereria bancrofti</i> ; 76°, 194°            | Hsiao                             | 1946                   |
|                                    | Hill stream of vegetation, pool left in river bed, temporary rain pools with irrigation ditch; ---; 76  | Feng                              | 1933 b                 |
|                                    | Weedy pools, creeks, green algae, foothills; ---; 76  | Chang                             | 1939                   |
|                                    | Rice fields, ponds, pools, streams; Jul.-Aug.; 76   | Chung & Lin                       | 1931                   |
|                                    | Lowlands, river beds; ---; 76   | Li & Wu                           | 1935 b +               |
|                                    | ---; experimentally infected with <i>W. bancrofti</i> ; 76  | Bohart                            | 1946                   |
|                                    | ---; in hilly regions; 76   | Feng                              | 1935                   |
|                                    | ---; rare, enters houses; 76  | Meng                              | 1943                   |

TABLE I - MOSQUITOES (continued)

| SPECIES                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR              | DATE   |
|-------------------------------|---|---------------------|--------|
| <i>CULEX bitaeniorhynchus</i> | In water pools, streams; --; 77   | Chow                | 1950   |
| Giles (cont.)                 | ---; ---; 139, 194 (Hill streams, pools, ditches with filamentous green algae, bites during the day, rarely at night)       | Hsiao               | 1945   |
|                               | Streams, irrigation drains, pools with green algae, rice fields; active at night; 143                                       | Mohan               | 1950   |
|                               | Weedy pools, ditches; ---; 13   | Roy & Brown         | 1954   |
|                               | River; Dec.; 143  | Fletcher            | 1923   |
|                               | ---; naturally infected with <i>W. bancrofti</i> and <i>W. malayi</i> ; 143   | Raghavan            | 1961   |
|                               | ---; March-Apr., June-July, Sept.-Nov.; 143   | Senior-White        | 1934   |
|                               | Grassy streams and pools; in country settlements; 144   | Borel               | 1926   |
|                               | Trough, a spring pond with <i>Spirogyra</i> ; ---; 145, 146, 147, 149   | Brug                | 1931 a |
|                               | Clear water of rice paddies, stream pools, ditches with green algae; partial development of <i>W. bancrofti</i> ; 158°      | Hsiao & Bohart      | 1946   |
|                               | Shaded, clean water, marginal vegetation, ground pools; bites at night, suspected vector of Japanese "B" encephalitis; 158° | La Casse & Yamaguti | 1950   |
|                               | ---; naturally infected with <i>W. bancrofti</i> ; 158*   | Manson-Bahr         | 1959   |
|                               | ---; indoors; 158   | Mitamura & Kitaoka  | 1950   |
|                               | Fresh and clean water with filamentous green algae; bites man day and night, partial development of filaria; 168°           | Hsiao               | 1948   |
|                               | Pools, swamps, pitcher plants, traveller's palms; ---; 190  | Milne               | 1933   |
|                               | Fresh clean natural water, hill streams, water with filamentous green algae; ---; 194                                       | Anonymous           | 1946   |
|                               | Marsh with algae, fish pond and mountain stream; ---; 242°  | Delfinado           | 1966   |
|                               | Open weedy pools, rice fields; ---; 242   | Bohart              | 1945   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|--|---|------------------------|--------|
| <i>CULEX bitaeniorhynchus</i><br>Giles<br>(cont.)              | ---; naturally infected with P-886, a strain of sindbis virus; 242  | Rudnick et al.         | 1962   |
|  | Shallow flood water near lakes, stagnant water in old river beds, lake banks, artificial reservoirs with direct sun and submerged vegetation; June-Oct.; 256° | Petrishcheva           | 1948   |
|  | Ditches with stagnant water with vegetation; ---; 256   | Pavlovskii             | 1947 + |
|  | Rice paddies, algae pools of streams; lower vegetation, in caves, on damp rocks; 257°   | Bohart & Ingram        | 1946   |
|  | Rice fields, hoof marks near borrow pits; enters houses; 277  | Barraud & Christophers | 1931   |
|  | Ponds, mountain streams; Apr.; 277  | Causey                 | 1937   |
|  | Grassy margins of streams, hyacinth ponds, obstructed drains; ---; 280  | Colless                | 1957 a |
| <i>bitaeniorhynchus ambiguus</i><br>(Theobald)                 | ---; ---; 70  | Carter                 | 1950 a |
|  | ---; ---; 143   | Barraud                | 1924 b |
| <i>bitaeniorhynchus aurantapex</i><br>Edwards                  | ---; ---; 149   | Brug & Edwards         | 1931   |
| <i>bitaeniorhynchus</i><br>var. <i>domesticus</i><br>Leicester | ---; ---; 149, 190  | Brug & Edwards         | 1931   |
| <i>bitaeniorhynchus</i><br><i>karatsuensis</i><br>Mochizuki    | ---; ---; 76, 77, 146. ---; rare; 168<br>Drains with algae; ---; 158°   | Yamada                 | 1928   |
|  | Sunlit places with algae, rice paddies, ground pools, ditches; night biter, enters houses, possible vector of Japanese "B" encephalitis; 168°                 | Sasa & Sabin           | 1950   |
| <i>bitaeniorhynchus</i><br><i>tenax</i><br>Theobald            | ---; ---; 11, 59. ---; Jul., Oct.; 70. ---; Jan., June-Nov.; 143. ---; Aug.-Sept.; 235<br>---; ---; 190   | Barraud                | 1924 b |
|  | Tree holes, bamboo stumps; ---; 70, 143, 144, 145, 146, 147, 149, 190, 277  | Stone et al.           | 1959   |
| <i>brevipalpis</i><br>(Giles)                                  | Bamboo stumps, tree holes, found in a kong in the open; ---; 76   | Brug                   | 1931 a |
|  | Pools, ponds in hilly region; ---; 76   | Chang                  | 1939   |
|  |   | Feng                   | 1935 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)               | AUTHOR                    | DATE   |
|--|---|---------------------------|--------|
| <i>CULEX brevipalpis</i><br>(Giles)<br>(cont.) | ---; dense woods; 76  | Riley                     | 1932   |
|  | Pitcher plants; ---; 76   | Bohart                    | 1946   |
|  | Bamboo stumps, papaya tree holes; ---; 77   | Chow                      | 1950   |
|  | ---; ---; 77, 257, 337 (Tree holes, cut bamboo,<br>water tanks and in forest streams) | Delfinado                 | 1966   |
|  | Tree holes, bamboos, occasionally in artificial<br>containers; ---; 143, 147, 190     | Lee                       | 1944   |
|  | Tanks; ---; 143   | Barraud                   | 1924 e |
|  | ---; common; 143. ---; ---; 144, 218 (Tree holes,<br>bamboos, open iron tank)         | Barraud                   | 1934   |
|  | Tree holes; Jul.-Sept., Dec.; 143. ---; ---; 2 <sup>nd</sup>                          | Barraud                   | 1924 b |
|  | Artificial containers; ---; 144   | Borel                     | 1926   |
|  | Artificial containers, small natural pools, tree<br>and bamboo holes; ---; 242        | Bohart                    | 1945   |
|  | Forest streams; ---; 242  | Baisas                    | 1935 a |
|  | Artificial containers, tree holes, bamboos; ---; 257                                  | Bohart &<br>Ingram        | 1946   |
|  | Artificial collections of water; enters houses; 277                                   | Barraud &<br>Christophers | 1931   |
|  | Pools; ---; 277   | Causey                    | 1937   |
| <i>campilunati</i><br>Carter &<br>Wijesundara  | ---; ---; 70  | Carter                    | 1950 a |
| <i>castrensis</i><br>Edwards                   | ---; ---; 70  | Barraud                   | 1934   |
|  | Shady pool in bed of partly dried stream; ---; 76                                     | Hu                        | 1937   |
|  | Spring; ---; 143, 146   | Brug                      | 1931 a |
|  | Streams; ---; 277   | Causey                    | 1937   |
| <i>castrensis</i><br><i>foliatus</i><br>Brug   | Shady pool in bed of partly dried stream; ---; 76                                     | Hu                        | 1937   |
|  | Pools in sandy stream beds; springs; 76   | Hsiao                     | 1945   |
|  | ---; ---; 139, 146 (Pools in sandy stream beds)                                       | Hsiao                     | 1945   |
|  | Small, clear water pools; ---; 146  | Brug                      | 1932 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR             | DATE   |
|--|---|--------------------|--------|
| <i>CULEX</i>                             |   |                    |        |
| <i>chiyutoi</i><br>Baisas                | Tree holes, small ground pools; ---; 242  | Delfinado          | 1966   |
| <i>cinctellus</i><br>Edwards             | ---; ---; 70, 133, 143, 145, 146, 149, 190, 242, 257<br>(Shaded ground water pools in or near forest,<br>occasionally bite man, resting among vegetation and<br>open areas) | Delfinado          | 1966   |
|  | ---; Oct.; 143  | Barraud            | 1924 d |
|  | ---; ---; 280   | Edwards &<br>Given | 1923   |
| <i>coerulescens</i><br>Edwards           | Pitcher plants; ---; 145, 280   | Edwards            | 1928 a |
| <i>concolor</i><br>Robineau-<br>Desvoidy | ---; ---; 70  | James              | 1914   |
|  | Polluted water in artificial containers, grassy area<br>overflowed with sewage; June-Aug., Nov.; 76   | Riley              | 1932   |
|  | ---; ---; 77  | Faust              | 1926 a |
|  | ---; ---; 139   | Anonymous          | 1915   |
|  | ---; ---; 143   | Fletcher           | 1917   |
|  | Jungle pool; ---; 190   | Smart              | 1914   |
|  | Cess pits; ---; 235   | Mhaskar            | 1913 + |
|  | ---; ---; 242   | Bezzi              | 1913   |
| <i>cornutus</i><br>Edwards               | Ground pools, jungle pools, fallow and rice fields;<br>---; 143   | Barraud            | 1934   |
|  | Marshy fields; jungle; 143  | Barraud            | 1923 e |
|  | Pools and moats; jungle; 143  | Edwards            | 1922 b |
|  | ---; July-Aug., Dec.; 143   | Barraud            | 1924 b |
| <i>culionicus</i><br>Delfinado           | ---; ---; 242   | Delfinado          | 1966   |
| <i>curtipalpis</i><br>Edwards            | From <i>Nepenthes</i> leaf cups; ---; 145, 149, 280   | Brug               | 1931 a |
|  | ---; ---; 190   | Brug &<br>Edwards  | 1931   |
| <i>deserticola</i><br>Kirkpatrick        | ---; ---; 150   | Gutzevich          | 1948 + |
|  | ---; ---; 302   | Stone              | 1961   |
|  | ---; ---; 317   | Anonymous          | 1944   |
| <i>dicnyensis</i><br>Brug                | Ditches; ---; 146   | Brug               | 1931 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                          | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|----------------------------------|---|---|--|
| <i>CULEX edwardsi</i><br>Barraud | ---; ---; 70<br>---; enters houses, June; 143   | Carter<br>Barraud   | 1950 a<br>1923 c   |
| <i>eminentia</i><br>(Leicester)  | ---; ---; 145, 190<br>Pitcher plants; ---; 230  | Edwards<br>Colless  | 1928 a<br>1957 a   |
| <i>epidemicus</i><br>(Theobald)  | ---; ---; 70<br>---; Aug.-Nov.; 143   | Carter<br>Barraud   | 1950 a<br>1924 b   |
| <i>ethiopicus</i><br>Edwards     | ---; ---; 332   | Stone et al.  | 1959   |
| <i>exilis</i><br>Dyar            | Reservoirs with fresh water and vegetation; ---; 256, 321, 345, 350   | Shtakelberg   | 1937   |
| <i>fasciatus</i><br>Baisas       | ---; ---; 242   | Delfinado   | 1966   |
| <i>fatigans</i><br>Wiedemann     | Permanent water with little vegetation, artificial containers; ---; 2, 25 (Bites man at night)<br><br>Shallow brackish wells; June-Sept.; 2<br><br>---; ---; 35, 256 (Artificial reservoirs, ponds and ditches with dirty water, in houses)<br><br>---; ---; 59, 235<br><br>Water; abundant near dwellings, Oct.; 70°<br><br>Tree holes and bamboo stumps; ---; 70<br><br>---; houses, cattle-baited traps, naturally infected with <i>Plasmodium falciparum</i> ; 70, 191. Pits, drains, and highly polluted stagnant water; ---; 191<br><br>Contaminated artificial containers around houses, rice fields, pools; July-August; 76<br><br>---; common, enters houses, bites at night; 76°<br><br>Stagnant water, pits of fecal matter; ---; 76<br><br>Flooded drains, ditches, shallow wells, rarely bamboo; flight range 3-4 miles; 76* | Edwards<br>Loughman<br>Monchadskii<br>Barraud<br>James<br>Wijesundara<br>Carter<br>Chung & Lin<br>Meng<br>Feng<br>Farner et al.<br>Bohart & Ingram<br>Lamborn | 1941<br>1921 +<br>1936<br>1924 b<br>1914<br>1942<br>1948<br>1931<br>1943<br>1932<br>1946 +<br>1946 +<br>1922 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>CULEX fatigans</i><br>Wiedemann<br>(cont.) | Bamboo holes; ---; 76<br>---; experimentally infected with <i>Wuchereria bancrofti</i> , intermediate host of <i>W. bancrofti</i> ; 76*. ---; naturally infected with <i>W. bancrofti</i> ; 139<br>---; naturally infected with <i>W. bancrofti</i> ; 76, 77<br>---; carrier of filaria, dengue; 76, 77, 158<br>Ditches, pools, ponds, artificial containers; common; 77<br>---; ---; 118<br>---; ---; 122<br>Artificial containers; ---; 139<br>---; carrier of <i>W. bancrofti</i> ; 139*<br>Cement drains with reservoir and cess pool; enters houses, vector of <i>W. bancrofti</i> ; 143*<br>Collection of water containing organic matter; transmits <i>W. bancrofti</i> ; 143<br>Cement pits, sewage; naturally infected with filaria; 143°<br>Tanks, irrigation channels; March-May; 143<br>Ditches, pools; at 6000 feet; 143<br>Shaded and stagnant collection of water, grass plots, lagoons; ---; 143<br>Rotting vegetation; ---; 143<br>Open wells, common in filthy water; ---; 143<br>Artificial containers with rain water; ---; 143<br>Unused wells containing brackish water; ---; 143<br>Open earth drains; ---; 143<br>---; experimentally and naturally infected with <i>W. bancrofti</i> , natural vector of <i>W. bancrofti</i> ; 143, 144.<br>---; natural vector of <i>W. bancrofti</i> ; 146, 242<br>---; Feb.-March; 143<br>---; experimental transmission of <i>W. bancrofti</i> by bite; 143 | Hu<br>Feng<br>Manson-Bahr<br>Faust<br>Chow<br>Shingarev<br>de Mello & Afonso<br>MacFarlane<br>Jackson<br>Korke<br>Sundar Rao<br>King et al.<br>Senior-White<br>Barraud<br>Afridi et al.<br>Fletcher<br>Fletcher<br>Sundar Rao<br>Jaswant Singh<br>Roy<br>Raghavan<br>Korke<br>Menon & Ramamurti | 1937 +<br>1935<br>1959<br>1926 a<br>1950<br>1929 +<br>1921<br>1915 +<br>1936<br>1930<br>1940<br>1929<br>1928 a<br>1924 e<br>1940<br>1928<br>1930<br>1936<br>1933<br>1931<br>1961<br>1928<br>1941 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE     |
|---|--|------------------------|----------|
| <i>CULEX fatigans</i><br>Wiedemann<br>(cont.) | ---; culverts, greenhouses, damp, dark, cool places; 143   | Afridi & Majid         | 1938     |
|   | ---; all year; 143*  | Senior-White           | 1934     |
|   | ---; ---; 143 (Flooded latrines, overflow water from houses, ground pools, shallow wells, rarely in tree holes or bamboos) | Barraud                | 1934     |
|   | Swamps, streams, artificial containers with or without vegetation; in houses, all year; 144*                               | Borel                  | 1930 a   |
|   | Surface drains; ---; 144   | Cruickshank & Wright   | 1914     |
|   | ---; in houses, common, transmits <i>Wuchereria bancrofti</i> , Toumanoff suspected vector of dengue; 144                  | Toumanoff              | 1935     |
|   | ---; active during cold season, ferocious biter; 144°  | Galliard               | 1936 a   |
|   | ---; experimental transmission of <i>W. bancrofti</i> ; 144  | Galliard               | 1938     |
|   | ---; ---; 145*   | Wilcocks               | 1944 d   |
|   | ---; ---; 146  | Edwards                | 1928     |
|   | ---; Feb.; 149   | Stanton                | 1915     |
|   | ---; ---; 150, 151, 158, 256 (Reservoirs, enters houses, transmits malaria)  | Shtakelberg            | 1937     |
|   | Pools; ---; 151  | Barraud                | 1920     |
|   | At 5000 feet above sea level; ---; 174. ---; experimental transmission of dengue; 242                                      | Siler et al.           | 1926     |
|   | ---; in houses, April, July, Dec. and Jan.; 190  | Gater                  | 1933 b   |
|   | Artificial containers; enters houses; 190  | Milne                  | 1933     |
|   | Unshaded pools; ---; 190   | Lamborn                | 1922 a   |
|   | ---; all year; 190   | Kingsbury              | 1933     |
|   | ---; indoors by day; 190°  | Wharton & Reid         | 1950     |
|   | ---; ---; 190*   | Hodgkin                | 1938     |
|   | ---; ---; 194  | Cooling                | 1924 a + |
|   | ---; common; 242*  | Houghwant              | 1918     |
|   | ---; ---; 242*   | Cabrera & Rozeboom     | 1964     |
|   | Natural and artificial collection of water; attracted to lights, enter houses; 277   | Barraud & Christophers | 1931     |
|   | ---; naturally infected with <i>W. bancrofti</i> ; 326   | Yakimoff et al.        | 1917     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR          | DATE   |
|---|--|-----------------|--------|
| <i>CULEX</i><br><i>fatigans</i><br>Wiedemann<br>(cont.) | Small pond; ---; 337   | Brug            | 1931 a |
| <i>flavicornis</i><br>Barraud                           | ---; Oct.; 143   | Barraud         | 1924 d |
| <i>flavus</i><br>Motschulsky                            | ---; ---; 256  | Stone et al.    | 1959   |
| <i>fouchouensis</i><br>Theobald                         | ---; ---; 76   | Stone et al.    | 1959   |
| <i>fragilis</i><br>Ludlow                               | ---; ---; 70, 143, 145, 190, 242, 277, 337 (Artificial containers, coconut shells, ground pools and tree holes)  | Delfinado       | 1966   |
|   | Tree holes; Sept.; 143   | Barraud         | 1924 d |
|   | Brackish water; ---; 277   | Bohart          | 1945   |
| <i>fraudator</i><br>Theodor                             | ---; Sept.; 11. ---; Aug.; 143   | Barraud         | 1924 d |
|   | ---; 145, 190, 242   | Edwards         | 1922 c |
|   | Ponds in deep shade, depressions shielded by thick bushes and tall grasses and ferns, obstructed drains, artificial containers, coconut shells and bamboo stumps; ---; 280 | Colless         | 1957 a |
| <i>fraudatrix</i><br>Theobald                           | ---; ---; 11   | Barraud         | 1934   |
|   | Potholes in mangrove tidal area, shallow wells; ---; 143, 190  | Lee             | 1944   |
|   | ---; ---; 145  | Edwards         | 1924 + |
|   | ---; ---; 146, 149   | Brug & Edwards  | 1931   |
|   | Shaded leafy pool, sunlit footprints, potholes, clear vegetated river; ---; 242  | Bohart          | 1945   |
|   | Impounded, clear, vegetated spring water, slow-flowing vegetated streams; ---; 242   | Baisas          | 1935 a |
|   | ---; ---; 277  | Causey          | 1937 + |
|   | Pot holes in mangrove tidal area, but also away from coast; ---; 280   | Edwards & Given | 1928   |
| <i>fulleri</i><br>(Ludlow)                              | ---; ---; 242  | Bick            | 1949   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                              | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|--------------------------------------|---|------------------------|--------|
| <i>CULEX fusciferus</i><br>Wiedemann | ---; ---; 11, 59, 70, 143, 144, 190, 242, 277, 337<br>(Natural pools, shallow wells, artificial containers of water)      | Barraud                | 1934   |
|                                      | Artificial containers, polluted ground pools; experimentally infected with <i>Wuchereria bancrofti</i> ; 76               | Bohart                 | 1946   |
|                                      | Natural pools; bloodsucker; 76°   | Tseng & Wu             | 1951   |
|                                      | Natural pools; ---; 76  | Chow                   | 1949 c |
|                                      | ---; experimentally infected with <i>W. malayi</i> ; 76   | Hu                     | 1944 + |
|                                      | ---; flat regions; 76   | Feng                   | 1935   |
|                                      | ---; ---; 76, 139 (Clear water, bites man)  | Hsiao                  | 1945   |
|                                      | Artificial containers; ---; 77  | Chow                   | 1950   |
|                                      | ---; in plains, up to 4000 feet, July-Aug.; 143.<br>---; July-Aug.; 235   | Barraud                | 1924 b |
|                                      | ---; ---; 145, 146, 149, 158, 168, 294 (Natural pools, shallow wells and domestic collections of water, seldom bites man) | Delfinado              | 1966   |
|                                      | ---; ---; 146, 149  | Brug & Edwards         | 1931   |
|                                      | Small natural pools with stagnant water, shallow wells, artificial containers; ---; 242                                   | Bohart                 | 1945   |
|                                      | ---; ---; 256   | Stone et al.           | 1959   |
|                                      | Natural water collections, rice fields; enters houses; 277  | Barraud & Christophers | 1931 + |
|                                      | Pools of stagnant water; cannibalistic; 277   | Causey                 | 1937   |
|                                      | Obstructed drains, artificial containers, coconut shells, bamboo stumps; ---; 280   | Colless                | 1957 a |
| <i>fuscifurcatus</i><br>Edwards      | ---; ---; 70  | Carter                 | 1950 a |
|                                      | Natural pools; ---; 76  | Chow                   | 1949 c |
|                                      | ---; ---; 143   | Edwards                | 1934 a |
| <i>fucitarsis</i><br>Barraud         | Ground and river pools, swamps; ---; 143  | Barraud                | 1934   |
|                                      | ---; July; 143  | Barraud                | 1924 b |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                    | DATE   |
|--|--|---------------------------|--------|
| <i>CULEX fuscocephalus</i><br>Theobald | ---; Aug.-Sept.; 11. ---; Jan., 4000 feet; 59.<br>---; Jan., June-Sept.; 143. ---; Aug.-Sept.; 235   | Barraud                   | 1924 b |
|  | ---; ---; 11, 59, 70, 77, 143, 144, 145, 146, 149,<br>190, 242, 277 (Ground pools, rice paddies, common<br>in houses, possible vector of filariasis). Muddy<br>pond with weeds, algae, small brooks, irrigation<br>ditches; ---; 242 | Delfinado                 | 1966   |
|  | Tree holes; ---; 70  | Wijesundara               | 1942   |
|  | ---; naturally infected with <i>Wuchereria malayi</i> ; 70   | Carter                    | 1948   |
|  | Shady sewage contaminated pool, mud hole, artificial<br>container; ---; 76   | Riley                     | 1932   |
|  | Semipermanent ground pools; ---; 76  | Bohart                    | 1946   |
|  | Pond; ---; 76  | Hu                        | 1937   |
|  | Rice fields and pools; ---; 77   | Chow                      | 1950   |
|  | ---; ---; 139  | Anonymous                 | 1915   |
|  | Shallow grassy clean water pools; Nov.; 143  | Senior-White              | 1934   |
|  | Ground pools, rice fields; ---; 143  | Roy & Brown               | 1954   |
|  | Large pools, ponds; ---; 143   | Barraud                   | 1924 e |
|  | Swamps, streams, artificial containers with or<br>without vegetation; in houses, all year; 144   | Borel                     | 1926   |
|  | ---; ---; 145*   | Manson-Bahr               | 1959   |
|  | ---; experimentally infected with <i>W. bancrofti</i> ; 145  | Brug                      | 1937   |
|  | Exposed clear ground pool, borrow pit; ---; 242  | Bick                      | 1949   |
|  | Rice fields; ---; 242  | Bohart                    | 1945   |
|  | ---; naturally infected with <i>W. bancrofti</i> , carabao-<br>baited trap; 242  | Rozeboom &<br>Cabrera     | 1964   |
|  | Rice fields; enters houses, near lights; 277   | Barraud &<br>Christophers | 1931   |
|  | Ground pools; ---; 277   | Causey                    | 1937   |
|  | Hyacinth ponds, obstructed drains, artificial<br>containers; ---; 280  | Colless                   | 1957 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                          | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                 | DATE   |
|----------------------------------|---|------------------------|--------|
| <i>CULEX gelidus</i><br>Theobald | —; Jan.; 59. —; Jul.-Oct.; 143  | Barraud                | 1924 b |
|                                  | —; —; 59, 70, 77, 144, 190, 227, 242, 337<br>(Ground pools with weeds, marshy tracts)   | Barraud                | 1934   |
|                                  | Swamps, natural pools; Sept.; 70°   | James                  | 1914   |
|                                  | River; ---; 70  | Senior-White           | 1920 a |
|                                  | —; naturally infected with <i>Wuchereria malayi</i> ; 70  | Carter                 | 1948   |
|                                  | —; naturally infected with filaria; 70  | Dassanayake & Chow     | 1954   |
|                                  | Semipermanent ground pools; ---; 76   | Bohart                 | 1946   |
|                                  | —; —; 76, 139 (Pools with sandy bottoms, containing considerable decayed vegetable matter, bites man)                                     | Hsiao                  | 1945   |
|                                  | Artificial containers, open drains, swamps, and natural pools; enter houses, April, June-Dec.; 143°                                       | Senior-White           | 1924 c |
|                                  | Weedy pools, tanks, marshes; ---; 143   | Barraud                | 1924 e |
|                                  | —; naturally infected with <i>W. bancrofti</i> and <i>W. malayi</i> ; 143   | Raghavan               | 1961   |
|                                  | Swamps, streams, artificial containers with or without vegetation; in houses; 144   | Borel                  | 1926   |
|                                  | —; —; 149   | Brug & Edwards         | 1931   |
|                                  | —; —; 158, 218, 235, 242 (Ground pools in weedy and marshy areas, carabao-baited trap, enters houses). Rice paddies, fish ponds; ---; 242 | Delfinado              | 1966   |
|                                  | Natural collections of water; enters houses; 190  | Milne                  | 1933   |
|                                  | —; all year; 190  | Kingsbury              | 1933   |
|                                  | —; vicious biter, July; 190°  | Gater                  | 1933 b |
|                                  | Permanent pools near habitations; ---; 242°   | Bohart                 | 1945   |
|                                  | Exposed creek pot holes with vegetation; ---; 242   | Bick                   | 1949   |
|                                  | Natural water collections, rice fields; enters houses; 277  | Barraud & Christophers | 1931   |
|                                  | Ground pools of a mountain stream; ---; 277   | Causey                 | 1937   |
|                                  | Hyacinth ponds, obstructed drains; ---; 280   | Colless                | 1957 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>CULEX</i><br><i>gelidus</i><br>var. <i>bipunctatus</i><br>Theobald | ---; ---; 70<br>Contaminated pools; ---; 76<br>---; ---; 143   | Carter<br>Chow<br>Barraud   | 1950 a<br>1949 c<br>1924 b   |
| <i>gelidus</i><br><i>cuneatus</i><br>Theobald                         | ---; ---; 70<br>---; ---; 143<br>---; ---; 242   | Carter<br>Barraud<br>Bezzi  | 1950 a<br>1924 b<br>1913   |
| <i>geminus</i><br>Colless   | Grassy margins of running streams; ---; 280  | Colless   | 1957   |
| <i>gibbulus</i><br>Delfinado  | ---; ---; 242  | Delfinado   | 1966   |
| <i>habilitator</i><br>Dyar &<br>Knob                                  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 143   | Mansen-Bahr   | 1959   |
| <i>hackeri</i><br>Edwards   | Pools at stream edge; ---; 190   | Edwards   | 1923 +   |
| <i>halifaxi</i><br>Theobald   | Pools of dirty water in ravine; ---; 70. Rice fields; ---; 143. Small ponds, roadside ditches, jungle pool; ---; 190<br>---; enters houses; 70<br>---; ---; 70, 242, 277, 337 (Rock pools, rice fields, small ponds, road side ditches, jungle pools and other artificial containers about habitation)<br>Artificial containers, polluted ground pools; ---; 76<br>Tree holes; ---; 144<br>Rock pools, swamps, wheel ruts, slits, trenches and artificial containers; ---; 143, 190<br>---; ---; 146, 149<br>---; ---; 147<br>Rice fields, jungle pools, tea-tree swamp; ---; 242<br>Drains, swamps, artificial containers; ---; 242<br>Artificial water collections; enters houses; 277<br>Pools of stagnant water, cannibalistic; ---; 277 | Barraud<br>Senior-White<br>Delfinado<br>Bohart<br>Borel<br>Lee<br>Brug & Edwards<br>Brug<br>Bohart<br>Hsiao<br>Barraud & Christophers<br>Causey | 1934<br>1920 a<br>1966<br>1946<br>1930 a<br>1944<br>1931<br>1925 +<br>1945<br>1945<br>1931<br>1937 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE     |
|--|--|---------------------|----------|
| <i>CULEX</i><br><i>hayashii</i><br>Yamada      | Swamp, slowly running temporary stream, rain pool, shaded running hill stream with grassy edge; ---; 76                | Feng                | 1933 b   |
|  | Lakes with surface vegetation; ---; 76   | Anonymous           | 1946 a + |
|  | Springs, stream pools; ---; 76   | Bohart              | 1946     |
|  | ---; hilly regions; 76   | Feng                | 1935     |
|  | ---; June-Aug.; 76   | Wu                  | 1936     |
|  | Mountain streams; ---; 77  | Chow                | 1950     |
|  | ---; ---; 143. Rock pools, side pools of small streams, seepage pools; damp situations among vegetation and rocks; 257 | Bohart & Ingram     | 1946     |
|  | Shaded, vegetated margins of low streams, rice paddies, irrigation ditches; May-Oct.; 158°                             | La Casse & Yamaguti | 1950     |
|  | Small natural pond, almost dried up, completely shaded; ---; 158   | Lamborn             | 1922     |
|  | Seepage pools, rock pools, stream pools; ---; 158  | Hsiao & Bohart      | 1946     |
|  | Cool streams at foot of mountains; ---; 158  | Sasa & Sabin        | 1950     |
|  | Muddy shaded pools; ---; 158   | Yamada              | 1925     |
|  | Ponds, ditches; rarely bites man; 168°   | Barnett & Toshioka  | 1951     |
|  | Slowly flowing streams; ---; 168   | Hsiao               | 1948     |
|  | Pools, slowly flowing streams; ---; 194  | Hsiao               | 1946     |
|  | Lake with much surface vegetation; ---; 194  | Chin                | 1936     |
|  | ---; ---; 256  | Stone et al.        | 1959     |
| <i>hewitti</i><br>Edwards                      | Pitcher plant; ---; 145  | Edwards             | 1923 +   |
|  | ---; ---; 149, 190   | Brug & Edwards      | 1931     |
|  | ---; ---; 242  | Edwards             | 1929     |
|  | Pitcher plant; ---; 280  | Edwards & Given     | 1928     |
| <i>hilli</i><br>var. <i>buxtoni</i><br>Edwards | ---; ---; 280  | Edwards             | 1928 a   |
| <i>hirsutus</i><br>Theobald                    | ---; ---; 242  | Bezzi               | 1913     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                           | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR             | DATE     |
|-----------------------------------|---|--------------------|----------|
| <i>CULEX hortensis</i><br>Ficalbi | Reservoirs with vegetation; ---; 35, 345  | Lynchadskii        | 1936     |
|                                   | Reservoirs with vegetation and clean water; in grottos; 118, 302, 318, 321, 326, 342  | Shtakelberg        | 1937     |
|                                   | Brooks, bogs and swamps; ---; 150   | Gutzevich          | 1948 +   |
|                                   | Brackish water; Jan.-May; 154. ---; July; 302   | Buxton             | 1924 a   |
|                                   | Pools; May; 154, 302  | Barraud            | 1921     |
|                                   | Shallow pools with vegetation, artificial containers; Mar.-May, Aug., Sept.; 174, 302   | Parr               | 1942 +   |
|                                   | Rain pools in meadows; ---; 317   | Bedia Bali         | 1938     |
|                                   | ---; June-February; 321   | Rybinsky           | 1933     |
|                                   | ---; ---; 350, 354  | Martini            | 1931     |
|                                   | ---; ---; 76  | Stone et al.       | 1959     |
| <i>huangae</i><br>Meng            | Road side pools; July; 143  | Barraud            | 1924 b   |
|                                   | Depressions shielded by thick bushes, tree holes, coconut shells, bamboo stumps and artificial containers; ---; 280   | Colless            | 1957 a   |
| <i>impudicus</i><br>Ficalbi       | ---; ---; 321   | Rybinsky           | 1933     |
| <i>incognitus</i><br>Baisas       | Grassy puddles, stagnant pools, rice fields, forest swamps, shaded creeks; ---; 242   | Delfinado          | 1966     |
|                                   | ---; carabao-baited trap, outdoors and indoors, anthropophilic; 242   | Rozeboom & Cabrera | 1964     |
| <i>infantulus</i><br>Edwards      | ---; ---; 70, 76, 143, 144, 146, 158, 191, 218, 242, 257, 277 (Seepage pools, rock stream pools, forest forest creeks with vegetation, damp vegetation and rocks along streams) | Delfinado          | 1966     |
|                                   | Temporary rain pool connecting an irrigation ditch, rain pool; ---; 76  | Feng               | 1933 b   |
|                                   | Rain pools; ---; 76   | Chang              | 1939     |
|                                   | Springs, stream pools; ---; 76  | Bohart             | 1946     |
|                                   | River beds; ---; 76   | Li & Wu            | 1935 b + |
|                                   | ---; ---; 76, 139 (Rain pools, shaded stream pools, irrigation ditches)   | Hsiao              | 1945     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR              | DATE   |
|--|---|---------------------|--------|
| <i>CULEX infarctulus</i><br>Edwards<br>(cont.) | Tanks, ditches, ponds, ground water pools, margins of slow moving streams; ---; 158                                 | La Casse & Yamaguti | 1950   |
|  | Seepage pools, stream pools, rock pools; ---; 158   | Hsiao & Bohart      | 1946   |
|  | Vegetated slow flowing streams; ---; 242  | Bohart              | 1945   |
|  | Seepage pools, stream pools with vegetation and rock pools; damp vegetation and rocks along streams, May-Sept.; 257 | Bohart & Ingram     | 1946   |
|  | Ground pools of mountain streams; ---; 277  | Causey              | 1937   |
| <i>iphis</i><br>Barraud                        | ---; Sept.; 143   | Barraud             | 1924 b |
| <i>jacksoni</i><br>Edwards                     | ---; ---; 76, 139   | Hsiao               | 1945   |
|  | ---; ---; 256   | Stone et al.        | 1959   |
| <i>javanensis</i><br>Bonne-Wepster             | Temporary ground pools; ---; 146  | Bonne-Wepster       | 1934 + |
| <i>jensenii</i><br>(de Meijere)                | <i>Nepenthes gymnamphora</i> ; ---; 145, 146, 149   | Brug                | 1931 a |
|  | Pitcher plants; ---; 190  | Edwards             | 1923 + |
|  | Pitcher plants; ---; 280  | Edwards & Given     | 1928   |
| <i>josephinae</i><br>Baisas                    | Marsh, swamp puddles; ---; 242  | Delfinado           | 1966   |
|  | Clear, vegetated river; ---; 242  | Baisas              | 1935 a |
| <i>khazaii</i><br>Edwards                      | Tree holes; Sept., Nov.; 143  | Barraud             | 1924 b |
| <i>laticinctus</i><br>Edwards                  | ---; ---; 151   | Gutzevich           | 1948 + |
|  | Cisterns, water-butts, open concrete tanks; ---; 154, 159, 342  | Buxton              | 1924 a |
|  | Covered surface wells, tanks; ---; 154, 159, 174, 342   | Barraud             | 1921   |
|  | ---; ---; 233   | Edwards             | 1921 + |
|  | Reservoirs, pits, artificial containers; ---; 256, 321, 342, 345  | Shtakelberg         | 1937   |
|  | Artificial containers; Aug.-Dec.; 302   | Parr                | 1943 + |
|  | Brackish water; ---; 302  | Adrien              | 1918   |
|  | ---; ---; 302, 317, 342 (Reservoirs, in inhabited areas)  | Monchadskii         | 1936   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR               | DATE           |
|--|---|----------------------|----------------|
| <i>CULEX</i><br><i>laticinctus</i><br>Edwards<br>(cont.) | ---; ---; 317<br>---; mostly near people; 350   | Anonymous<br>Martini | 1944<br>1931   |
| <i>latifoliatus</i><br>Delfinado                         | Creek; ---; 242   | Delfinado            | 1966           |
| <i>laureli</i><br>Baisas                                 | Along stream banks, in stagnant and grassy pools,<br>crab holes; ---; 242                                       | Delfinado<br>Baisas  | 1966<br>1935 a |
| <i>laurenti</i><br>Newstead                              | Vegetated edges of rapidly flowing streams; ---; 242<br>Grass and sedge; August; 154                            | Buxton               | 1924 a         |
|  | ---; ---; 159 (Enters houses, bites man)  | Martini              | 1931           |
|  | Rice fields; in houses; 342°  | Shtakelberg          | 1937           |
|  | ---; ---; 342   | Monchadskii          | 1936           |
| <i>lavatae</i><br>Stone &<br>Bohart                      | Tree holes; ---; 242  | Delfinado            | 1966           |
| <i>macdonaldi</i><br>Colless                             | ---; ---; 143. Clear fresh water just above tidal<br>limits; on vegetation in tidal zone; 242. ---; ---;<br>280 | Delfinado            | 1966           |
| <i>malayi</i><br>(Leicester)                             | ---; ---; 11, 59, 144<br>---; ---; 70   | Barraud<br>Carter    | 1934<br>1950 a |
|  | Ground pools, swamps, creeks, slowly flowing hill<br>streams, clear water; ---; 76                              | Chang                | 1939           |
|  | Rain pool connecting temporary running stream,<br>pond with surface vegetation; ---; 76                         | Feng                 | 1933 b         |
|  | Jungle, mountains, lowlands; ---; 76  | Li & Wu              | 1935 b         |
|  | Springs, stream pools; ---; 76  | Bohart               | 1946           |
|  | Ditches, ponds; ---; 76   | Chow                 | 1949 c         |
|  | ---; ---; 76, 139 (Ponds and ditches with clear<br>stagnant water)  | Hsiao                | 1945           |
|  | Ground pools; ---; 77   | Chow                 | 1950           |
|  | Stagnant pools with vegetation; ---; 143, 145, 147,<br>190  | Lee                  | 1944           |
|  | Rock pool; Nov.; 143  | Scnior-White         | 1934           |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                       | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|---|---|---|--|
| <i>CULEX malayi</i><br>(Leicester)<br>(cont.) | Between <i>Hydrilla</i> in shade; ---; 143, 144, 145, 146, 147, 149, 190<br>---; Sept.; 143<br>Stagnant water of furrows; ---; 144<br>Grassy streams, pools; ---; 144<br>Stone basin; ---; 145. Small rock pools along mountain streams; ---; 242<br>Rock pools in mountain streams; ---; 277   | Brug<br>Barraud<br>Borel<br>Borel<br>Bohart<br>Causey | 1931 a<br>1924 b<br>1926 c<br>1926<br>1945<br>1937 |
| <i>mammilifer</i><br>(Leicester)              | Bamboo stump; ---; 11, 143, 149, 190<br>---; Sept.; 11. ---; March; 59. ---; Oct.; 143<br>---; ---; 11, 59, 70, 143, 145, 149, 242 (Rarely bites man). Common in axils of Nipa palms, ground pools with decaying vegetation; ---; 190<br>Rock pool; ---; 70. ---; ---; 145, 190 (Jungle and rock pools)   | Brug<br>Barraud<br>Delfinado<br>Barraud<br>Bohart     | 1931<br>1924 d<br>1966<br>1934<br>1945             |
| <i>martinii</i><br>Meschid                    | ---; ---; 303<br>---; ---; 317<br>---; ---; 326   | Keshish'yan<br>Anonymous<br>Monchadskii               | 1941 +<br>1944<br>1936                             |
| <i>mattinglyi</i><br>Knight                   | ---; ---; 270, 332<br>---; ---; 302   | Stone et al.<br>Stone                                 | 1959<br>1961                                       |
| <i>microannulatus</i><br>Theobald             | ---; ---; 143*<br>Irrigation channels; ---; 144<br>---; ---; 242  | Manson-Bahr<br>Cruickshank & Wright<br>Banks          | 1959<br>1914<br>1919                               |
| <i>mimeticus</i><br>Noë                       | ---; ---; 31<br>---; ---; 35, 76, 118, 143, 256, 318, 342<br>(Collection of rain water in rocky streams, fast rivulets and back waters with vegetation)<br>---; ---; 59, 76, 77, 139, 143, 144, 190, 277 (Pools, slowly running streams with green algae, enters houses)<br>---; ---; 70. Fresh water pools, slowly running streams with green algae, artificial containers;<br>---; 76. Rice paddies; ---; 256 | Barraud<br>Monchadskii<br>Hsiao<br>Bohart & Ingram    | 1924 b<br>1936<br>1945<br>1946                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)       | AUTHOR              | DATE   |
|---|---|---------------------|--------|
| <i>CULEX mimeticus</i><br>Noë<br>(cont.)              | Pools on sandy river beds, hilly brooks; ---; 76                              | Feng                | 1935 a |
|   | Jungle, mountains, lowlands, ponds; ---; 76                                   | Li & Wu             | 1935 b |
|   | ---; at 10,000 feet elevation; 76   | Feng                | 1935   |
|   | ---; ---; 76, 118, 143, 162, 318, 342, 345 (Fresh water mountain streams)     | Shtakelberg         | 1937   |
|   | Streams, pools; ---; 77   | Chow                | 1950   |
|   | Swamps; ---; 143  | Horne               | 1914 + |
|   | Rock pools, rapidly running grassy streams; ---; 144                          | Borel               | 1930 a |
|   | Pools; ---; 145   | Roper               | 1914   |
|   | ---; ---; 146   | Edwards             | 1925   |
|   | Brooks; rice fields; 150  | Gutzevich           | 1948 + |
|   | Clear pools; ---; 154, 174, 317   | Barraud             | 1921   |
|   | ---; May; 154. ---; Aug., April; 159  | Buxton              | 1924 a |
|   | Rice paddies, green algae; occasionally enters house; 158                     | Hsiao & Bohart      | 1946   |
|   | Ground pools, drainage ditches; ---; 158                                      | La Casse & Yamaguti | 1950   |
|   | Fresh ground water pools, and ditches; rarely bites man; 168°                 | Barnett & Toshioka  | 1951   |
|   | Algae-covered water, rock pools; ---; 277                                     | Causey              | 1937   |
|   | Rock pools in dry stream beds; Mar., Apr.; 302                                | Parr                | 1943 + |
|   | ---; ---; 317   | Anonymous           | 1944   |
|   | ---; ---; 350   | Martini             | 1931   |
| <i>mimeticus</i><br>var. <i>mimuloides</i><br>Barraud | ---; ---; 143, 235  | Barraud             | 1924 b |
| <i>mimuloides</i><br>Barraud                          | ---; ---; 143   | Edwards             | 1934 a |
| <i>mimulus</i><br>Edwards                             | ---; ---; 59, 145   | Barraud             | 1934   |
|   | Ravine, well, swamp, pool in river, streams, paddy field; Dec.-Apr., June; 70 | Senior-White        | 1920 a |
|   | Old manure pit containing rain water; at 4000 feet elevation; 76              | Crook               | 1939   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>CULEX</i><br><i>mimulus</i><br>Edwards<br>(cont.) | Natural pools; ---; 76, 139<br>---; Jan., July-Sept.; 143. ---; Sept.; 235<br>Swamps, streams covered with vegetation, tree holes, hollow bamboo stalks; ---; 144<br>Rock basins; ---; 144<br>---; ---; 146, 149<br>Streams, ponds covered with vegetation, bamboo holes, stone tanks and sphagnum pools; ---; 147<br>---; ---; 130<br>---; ---; 218, 277, 337. Empty snail shells, ruts;<br>---; 242<br>Depressions shielded by thick bushes and tall grasses and ferns, obstructed drains, artificial containers, coconut shells, bamboo stumps; ---; 280 | Chow<br>Barraud<br>Borel<br>Borel<br>Brug & Edwards<br>Lee<br>Hsiao<br>Delfinado<br>Colless | 1949 c<br>1924 b<br>1930 a<br>1926<br>1931<br>1944<br>1945<br>1966<br>1957 a |
| <i>mindanaoensi</i> .<br>Baisas                      | Fresh water swamps; ---; 242  | Bohart  | 1945   |
| <i>minor</i><br>(Leicester)                          | ---; ---; 59, 76, 143, 190, 277, 280<br>Pool; ---; 70. Tree holes, rock pools, bamboo stumps; June; 143<br>Bamboo stumps; ---; 76   | Stone et al.<br>Barraud<br>Chow   | 1959<br>1924 d<br>1949   |
|  | Rock pool in stream bed; ---; 144, 146, 190, 280<br>Forest; ---; 144  | Brug<br>Borel   | 1931 a<br>1927 +   |
|  | Tree holes and bamboo stumps; ---; 144<br>Bamboo; ---; 190  | Borel<br>Edwards  | 1930 a<br>1926 +   |
|  | ---; ---; 190, 242, 257, 277 (Bamboo stumps, tree holes, rock holes in forest streams)  | Delfinado   | 1966   |
|  | Rock pools of mountain stream; ---; 277   | Causey  | 1937   |
|  | Rock pools, old fallen bamboos, tree holes; ---; 280  | Edwards & Given   | 1928   |
| <i>minor</i><br>var. <i>bandoengensis</i><br>Brug    | Bamboo stump; ---; 146  | Brug  | 1939   |

TABLE I - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>CULEX</i><br><i>minor</i><br>var. <i>bengalensis</i><br>Barraud | ---; ---; 133   | Stone et al.  | 1959   |
| <i>minutissimus</i><br>(Theobald)                                  | Spring pool; ---; 70<br><br>Bamboos; ---; 71<br><br>---; ---; 70, 145, 146 (Rock springs, pools in ravines and river beds, artificial containers of water in coconut shells, shallow wells, stagnant water in shaded culverts)<br><br>Springs, stream pools; ---; 76<br><br>---; ---; 139, 143, 144, 149 (Rock springs, pools in rivers and river beds, coconut shells, shallow wells)<br><br>Surface well; Sept.; 143  | Senior-White<br><br>Wijesundara<br><br>Barraud<br><br>Bohart<br><br>Hsiao   | 1928<br><br>1942<br><br>1934<br><br>1946<br><br>1945   |
| <i>modestus</i><br>Ficalbi   | ---; ---; 35, 118, 256, 318, 321, 326, 342<br>(Sunlit reservoirs with vegetation)<br><br>---; ---; 59, 143, 144. Semipermanent ground pools; ---; 76<br><br>Artificial containers, pools; ---; 76<br><br>Pools; Oct., Nov.; 151<br><br>Marsh; ---; 154<br><br>---; June; 154<br><br>---; ---; 162<br><br>Artificial containers; ---; 194<br><br>Ponds; ---; 194<br><br>---; ---; 235, 350<br><br>Fresh waters, river flood areas, steppe, rivers; May, peak Sept.; 256<br><br>Clay pits, standing water with submerged vegetation; ---; 256 | Monchadskii<br><br>Bohart<br><br>Hsiao<br><br>Barraud<br><br>Austen<br><br>Buxton<br><br>Ivanov<br><br>Anonymous<br><br>Hsiao<br><br>Wu<br><br>Martini<br><br>Anonymous | 1936<br><br>1946<br><br>1945<br><br>1920<br><br>1921<br><br>1924 a<br><br>1944<br><br>1946<br><br>1940<br><br>1931<br><br>1945 a |
|  | Salty lakes; ---; 256<br><br>---; bites man only outdoors; 256°<br><br>---; ---; 303<br><br>---; ---; 317   | Pavlovskii<br><br>Chagin<br><br>Keshish'yan<br><br>Anonymous  | 1947 +<br><br>1948<br><br>1941 +<br><br>1944   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                    | DATE   |
|---|--|---------------------------|--------|
| <i>CULEX modestus</i><br>Ficalbi<br>(cont.) | ---; April-October; 321  | Rybinsky                  | 1933   |
|   | ---; ---; 321°   | Reinhard &<br>Gutzevich   | 1931   |
|   | Swamps, brackish water; ---; 326   | Kazantzev                 | 1932 + |
|   | ---; ---; 345  | Mess                      | 1940   |
| <i>molestus</i><br>(Forskal)                | ---; enters houses, all year, bites man at night;<br>174°, 302   | Parr                      | 1943 + |
|   | ---; ---; 256  | Fedorev                   | 1946   |
| <i>navalis</i><br>Edwards                   | ---; ---; 145  | Austen                    | 1934   |
|   | ---; ---; 190  | Edwards                   | 1928 a |
|   | Pitcher plants; ---; 280   | Edwards &<br>Given        | 1928   |
| <i>nebulosus</i><br>Theobald                | ---; ---; 242  | Edwards                   | 1912   |
| <i>nematooides</i><br>Dyar &<br>Shannon     | ---; Aug.; 242   | Dyar &<br>Shannon         | 1925   |
| <i>niger</i><br>Leicester                   | ---; ---; 149  | Brug                      | 1925 + |
|   | ---; ---; 190  | Edwards                   | 1928   |
| <i>nigropunctatus</i><br>Edwards            | Pools; ---; 70. Rice fields; ---; 143. ---; ---; 235   | Barraud                   | 1934   |
|   | ---; ---; 70, 77, 133, 143, 145, 146, 149, 190, 257,<br>277 (Rice field, small shady pools and occasionally<br>in artificial containers). Tin cans, lily pond,<br>grassy ground pools, coconut shell, fox holes; ---;<br>242 | Delfinado                 | 1966   |
|   | Exposed dirty water, artificial containers; ---; 242   | Bick                      | 1949   |
|   | Rice field, small shady pools; ---; 242  | Bohart                    | 1945   |
|   | Shady pools, water receptacles; ---; 277   | Causey                    | 1937 + |
|   | ---; enters houses; 277  | Barraud &<br>Christophers | 1931   |
|   | Obstructed drains, artificial containers; ---; 280   | Colless                   | 1957 a |
| <i>nilgiricus</i><br>Edwards                | ---; at 7500 feet elevations, Dec.; 143  | Barraud                   | 1924 b |
| <i>nolledoi</i><br>Baisas                   | Rock holes in forest creeks; ---; 242  | Bohart                    | 1945   |
| <i>nudipalpis</i><br>Shingarev              | ---; ---; 256  | Stone et al.              | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE     |
|--|--|---------------------|----------|
| <i>CULEX</i><br><i>obscurus</i><br>Leicester | ---; ---; 190  | Edwards             | 1928     |
| <i>orientalis</i><br>Edwards                 | ---; ---; 70   | Carter              | 1950 a   |
|  | Lotus and spring ponds, lakes with vegetation; ---; 76   | Hsiao & Bohart      | 1946     |
|  | Jungle and mountains; ---; 76  | Li & Wu             | 1935 b + |
|  | Streams; ---; 77   | Chow                | 1950     |
|  | ---; ---; 139  | Hsiao               | 1945     |
|  | Fresh water ground pools, paddies, weedy margins of slow moving streams; ---; 158  | La Casse & Yamaguti | 1950     |
|  | Foul, stagnant water in swamps; ---; 158   | Lamborn             | 1922     |
|  | ---; enters houses, Aug.; 158  | Mitamura & Kitaoka  | 1950     |
|  | Fresh water in ground pools, rice paddies, ponds and ditches; rarely bites man; 168°   | Barnett & Toshioka  | 1951     |
|  | Lotus ponds, springs and lakes; ---; 168   | Hsiao               | 1948     |
|  | Lake with surface vegetation; ---; 194   | Hsiao               | 1946     |
|  | ---; grassy areas; 256   | Pavlovskii          | 1947 +   |
| <i>pachecoi</i><br>Baisas                    | Semi-stagnant edges of forest creeks; ---; 242   | Delfinado           | 1966     |
| <i>pallidothorax</i><br>Theobald             | ---; ---; 59, 77, 139, 143, 144, 145, 277 (Clean and occasionally polluted water, artificial containers, shady pools, stone holes around houses) | Hsiao               | 1945     |
|  | ---; ---; 59, 70, 143 (Tree holes, bamboos, shallow wells, streams, rock and swampy ground pools, sometimes in foul water)                       | Barraud             | 1934     |
|  | Rock spring, swamps, dirty portion of stream; ---; 70  | Senior-White        | 1920 a   |
|  | Tree holes, bamboo stumps, springs, rock or ground pools, swamps, pools in stream beds, clear water and foul water; ---; 76                      | Chang               | 1939     |
|  | Standing water with decaying leaves, other organic matter; experimental intermediate host of <i>Wuchereria bancrofti</i> ; 76                    | Hu                  | 1940 a   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE     |
|--|--|---------------------|----------|
| <i>CULEX pallidosthorax</i><br>Theobald<br>(cont.) | Artificial containers of clean rain water, shaded spring pool, bamboo stump; ---; 76   | Feng                | 1933 b   |
|  | Polluted ground pools; ---; 76   | Bohart              | 1946     |
|  | Lowlands, foul drains, ---; 76   | Li & Wu             | 1935 b + |
|  | Pits, stone holes; ---; 76   | Hu                  | 1937     |
|  | ---; ---; 76*  | Manson-Bahr         | 1959     |
|  | ---; ---; 76, 143, 144, 147, 190, 277 (Experimentally infected with <i>Wuchereria bancrofti</i> ). Tree holes, bamboos, shallow wells, stream and rock pools, swampy ground pools, occasionally polluted water; ---; 257 | Bohart & Ingram     | 1946     |
|  | Artificial containers; ---; 77   | Chow                | 1950     |
|  | Open wells, filthy water; ---; 143   | Fletcher            | 1930     |
|  | Tree holes, wells, swamps in forest paths; ---; 144  | Borel               | 1930 a   |
|  | ---; ---; 149  | Brug & Edwards      | 1931     |
|  | Artificial containers, rock pools; experimentally bites man; 158   | Hsiao & Bohart      | 1946     |
|  | Polluted water in tanks; moist sand caves; 158   | La Casse & Yamaguti | 1950     |
|  | ---; ---; 218, 242, 257 (Tree holes, bamboo, stream rock pools, ground pools and artificial containers)  | Delfinado           | 1966     |
|  | ---; August; 235   | Barraud             | 1924 d   |
|  | Rock holes; Aug., Oct., Nov.; 277  | Causey              | 1937     |
| <i>papuensis</i><br>(Taylor)                       | Coconut shells, polluted water in artificial containers, refuse pits, tree buttresses; ---; 147  | Lee                 | 1944     |
|  | Muddy shaded ground pool with leaves, mossy forest, holes in rotted banana stump, muddy stream pool, 5800 feet elevation; ---; 242   | Delfinado           | 1966     |
| <i>parainfantulus</i><br>Menon                     | ---; ---; 70   | Carter              | 1950 a   |
|  | ---; ---; 76, 143, 144, 146, 158, 242, 257, 277  | Mattingly           | 1949 a   |
| <i>pavlovsky</i><br>Shingarev                      | ---; ---; 166, 256   | Stone et al.        | 1959     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR      | DATE              |
|-------------------------------------|--|-------------|-------------------|
| <i>CULEX perexiguus</i><br>Theobald | Small marshy pools; April-May; 143<br>---; Apr., Sept.; 143. ---; June; 174. ---; ---; 235                                       | Barraud     | 1924 e<br>Barraud |
|                                     | Marshes, streams with vegetation; enters houses, bites<br>msu; 154°, 159°  | Buxton      | 1924 a            |
|                                     | Footprints, small collections of water; ---; 154   | Buxton      | 1922              |
|                                     | ---; ---; 317  | Anonymous   | 1944              |
|                                     | ---; ---; 342  | Séguy       | 1924              |
| <i>perplexus</i><br>Leicester       | ---; ---; 190  | Colless     | 1957              |
|                                     | Hyacinth ponds; ---; 280   | Colless     | 1957 a            |
| <i>pipiens</i><br>Linnaeus          | ---; ---; 28   | Popov       | 1924              |
|                                     | ---; ---; 31   | Bedford     | 1928              |
|                                     | Wells with high salt content; ---; 35  | Achundow    | 1935              |
|                                     | Clear or polluted water, artificial containers,<br>rarely found in tree holes, bamboo stumps, natural<br>pools, ditches; ---; 76 | Chang       | 1939              |
|                                     | Pond without vegetation; ---; 76   | Feng        | 1933 b            |
|                                     | Water kongs; ---; 76   | Lan Chou    | 1930              |
|                                     | ---; enters houses, experimentally and naturally<br>infected with <i>Wuchereria bancrofti</i> , Sept.-Oct.; 76                   | Hu          | 1935 c            |
|                                     | ---; naturally infected with filaria, host of<br><i>W. bancrofti</i> ; 76  | Feng        | 1935              |
|                                     | ---; jungle, mountains and lowlands; 76  | Li & Wu     | 1935 a            |
|                                     | ---; June-July; 76   | Hu & Chang  | 1933              |
|                                     | ---; ---; 76*  | Roy & Brown | 1954              |
|                                     | ---; ---; 76°  | Tseng & Wu  | 1951              |
|                                     | Artificial containers with stagnant water and<br>decomposing organic matter; ---; 118  | Roukhadze   | 1929              |
|                                     | Bogs and swamps, pits and ditches; ---; 150°   | Gutzevich   | 1948 +            |
|                                     | ---; ---; 150°   | Gutzevich   | 1943              |
|                                     | Deep well; near houses; 154, 174, 342  | Barraud     | 1921              |
|                                     | Cisterns; ---; 154   | Austen      | 1919              |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE   |
|--|--|---------------------|--------|
| <i>CULEX pipiens</i><br>Linnaeus<br>(cont.)    | Polluted water in ditches; bites man at night, all year, common August, experimental transmitter of and naturally infected with Japanese "B" encephalitis; 158°      | La Casse & Yamaguti | 1950   |
|  | Foul water, ponds with organic matter; ---; 158  | Lamborn             | 1922   |
|  | Ditches, ground pools, artificial containers, ponds and night soil containers; bites man at night, enters houses, possible vector of Japanese "B" encephalitis; 168° | Barnett & Toshioka  | 1951   |
|  | Polluted water; bites man at night, enters houses; 194°  | Chin                | 1936   |
|  | ---; enters houses; 207°   | Lepsi               | 1935   |
|  | ---; ---; 235  | Gill                | 1917   |
|  | Drains; enters houses; 256   | Kon et al.          | 1942   |
|  | ---; May-Oct.; 256   | Pletnjow            | 1928   |
|  | ---; naturally infected with Japanese "B" encephalitis; 294  | Sabin               | 1950   |
|  | Cistern; ---; 302  | Legendre            | 1924 a |
|  | ---; ---; 303  | Keshish'yan         | 1941   |
|  | Rain pools in meadows; ---; 317  | Bedia Bali          | 1938   |
|  | ---; enters houses, infected with oocysts and sporozoites; 321°  | Goritzkaya          | 1934   |
|  | Artificial water container; numerous; 321°   | Savitzkii           | 1938   |
|  | ---; ---; 321  | Rybinsky            | 1933   |
|  | Swamps, polluted ponds; ---; 326   | Kazantzev           | 1932   |
|  | Water butts, cisterns, rock tombs; ---; 342  | Buxton              | 1924 a |
|  | ---; ---; 345  | Mess                | 1940   |
| <i>pipiens</i><br><i>fatigans</i><br>Wiedemann | ---; ---; 70*, 76*, 139*, 143*, 144*, 145*, 146*, 242*. ---; naturally infected with <i>Wuchereria bancrofti</i> ; 143, 242  | Manson-Bahr         | 1959   |
|  | ---; ---; 122  | de Mello            | 1914   |
|  | ---; enter houses, all year; 144°  | Galliard            | 1936 a |
|  | ---; enters houses to bite at night and rest by day; 190°  | Wharton & Reid      | 1950   |
|  | Cess pits; ---; 235  | Mhaskar             | 1913 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR             | DATE   |
|---|--|--------------------|--------|
| <i>CULEX</i><br><i>pipiens</i><br><i>fatigans</i><br>Wiedemann<br>(cont.) | ---; bites man at night; 242°  | Banks              | 1919   |
|   | Open drains, pools, ponds, water receptacles; enters houses; 277   | Causey             | 1937   |
| <i>pipiens</i><br><i>pallens</i><br>Coquillet                             | Artificial containers, polluted ground water; experimentally infected with <i>Wuchereria bancrofti</i> , natural carrier of Japanese "B" encephalitis; 76                        | Bohart             | 1946   |
|   | Ponds, ditches; suspected carrier of filariasis, common; 76  | Robertson & Hu     | 1934   |
|   | Any collection of water containing much organic matter; bites at night, enters houses; 76°, 194°   | Hsiao              | 1946   |
|   | ---; enters house, common, possible vector of <i>W. bancrofti</i> , naturally infected with <i>W. bancrofti</i> ; 76°. ---; experimental vector of Japanese "B" encephalitis; 76 | Hsiao              | 1945   |
|   | ---; intermediate host of and experimentally infected with <i>Wuchereria bancrofti</i> , June-July; 76   | Hu & Yen           | 1933   |
|   | ---; ---; 76*  | Wharton            | 1957 a |
|   | ---; naturally infected with <i>W. bancrofti</i> ; 76*, 146*, 158*   | Manson-Bahr        | 1959   |
|   | ---; ---; 76* ---; ---; 194  | Feng               | 1935   |
|   | Any collection of water, especially with considerable matter; most suitable host of <i>W. bancrofti</i> , experimental and natural infection of Japanese "B" encephalitis; 158°  | Hsiao & Bohart     | 1946   |
|   | ---; experimental transmission of poliomyelitis virus to rhesus monkey; 158  | Mitamura & Kitaoka | 1950 a |
|   | Cesspools, drains, concrete pools; experimentally infected with Japanese "B" encephalitis; 158°  | Sasa & Sabin       | 1950   |
|   | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 158   | Yamada & Komori    | 1927   |
|   | ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 158. ---; common; 168  | Yamada             | 1928   |
|   | ---; experimental transmission of "West-Nile" virus; 158   | Kitaoka            | 1950   |
|   | In almost any collection of water; bites at night, host of <i>W. bancrofti</i> and experimentally and naturally infected with Japanese "B" encephalitis; 168°                    | Hsiao              | 1948   |
|   | Ubiquitous, water containing organic matter; ---; 194*   | Anonymous          | 1946   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                             | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR          | DATE   |
|-------------------------------------|---|-----------------|--------|
| <i>CULEX plantaginis</i><br>Barraud | Pools, cement water channel in heavy sāl forest;<br>---; 143  | Barraud         | 1934   |
|                                     | ---; August; 143  | Barraud         | 1924 d |
| <i>pluvialis</i><br>Barraud         | Small rock pool in heavy jungle; Sept.; 143   | Barraud         | 1924 b |
| <i>propinquus</i><br>Colless        | Artificial containers; ---; 280   | Colless         | 1957 a |
| <i>pseudoinfula</i><br>Theobald     | ---; ---; 76  | Faust           | 1926 a |
| <i>pseudosinensis</i><br>Colless    | Grassy margins of running streams; ---; 280   | Colless         | 1957 a |
| <i>pseudovishnui</i><br>Colless     | ---; ---; 143, 190, 242, 277 (Ground pools, rice fields and salt marshes). Ground pools, stagnant pond with algae; ---; 242 | Delfinado       | 1966   |
|                                     | Hyacinth ponds; ---; 280  | Colless         | 1957 a |
| <i>pullus</i><br>Theobald           | ---; ---; 70, 145, 190  | Edwards         | 1922 c |
|                                     | Irrigation channels; April-May; 143   | Senior-White    | 1928 a |
|                                     | Artificial containers, forest and jungle pools, tree holes; ---; 143. Forest and jungle pools; ---; 144                     | Knight et al.   | 1944 + |
|                                     | Rice fields; ---; 143, 235  | Barraud         | 1924 d |
|                                     | ---; ---; 146   | Edwards         | 1928   |
|                                     | Fresh water in wheel ruts, grassy drains, coconut shells, artificial containers; ---; 147                                   | Lee             | 1944   |
|                                     | ---; ---; 147 (Ground pools, tree holes)  | Bohart & Ingram | 1946   |
|                                     | ---; ---; 149   | Brug & Edwards  | 1931   |
| <i>pusillus</i><br>Macquart         | ---; ---; 150, 270, 302, 303  | Stone et al.    | 1959   |
|                                     | ---; ---; 151, 317, 318, 326 (Stagnant reservoirs with salt water)  | Monchadskii     | 1936   |
|                                     | ---; Sept.-Nov.; 151, 317   | Martini         | 1931   |
|                                     | ---; ---; 151, 318, 326 (Salt lakes)  | Shtakelberg     | 1937   |
| <i>quadripalpis</i><br>Edwards      | Tree holes; ---; 144  | Borel           | 1930 a |
|                                     | ---; ---; 145, 190  | Edwards         | 1922 c |
|                                     | Pot holes in mangrove tidal area, also away from coast; ---; 280  | Edwards & Given | 1928   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                   | DATE                           |
|---|---|--|--------------------------------|
| <i>Culex</i><br><i>quadripalpis</i><br>Edwards<br>(cont.) | Depressions shielded by thick bushes + tall grasses and ferns; ---; 280   | Colless                                  | 1957 a                         |
| <i>quinquefasciatus</i><br>Say                            | Artificial containers and polluted ground pools; naturally and experimentally infected with <i>Wuchereria bancrofti</i> ; 76<br><br>Ponds, ditches; ---; 76<br><br>---; naturally infected with <i>W. malayi</i> ; 76*. ---; naturally infected with <i>W. bancrofti</i> , probable vector of filariasis; 139. ---; regarded as a vector of filariasis; 144. ---; experimental transmission of <i>W. bancrofti</i> ; 146<br><br>---; experimental transmission of Japanese "B" encephalitis; 76 | Bohart<br><br>Chow<br><br>Hsiao          | 1946<br><br>1949 c<br><br>1945 |
|   | ---; ---; 76*, 77. Small water collections, especially those containing organic matter; enters houses, suitable intermediate host of <i>W. bancrofti</i> ; 158, 257   | Hsiao & Bohart                           | 1946                           |
|   | In rock holes with polluted water; rare; 144<br><br>---; bites at night; 158°   | Galliai & Ngu<br><br>La Casse & Yamaguti | 1950<br><br>1950               |
|   | Ditches, ground pools, artificial containers, streams, ponds and night soil containers; enters houses, night biter, possible vector of Japanese "B" encephalitis; 168°  | Barnett & Toshioka                       | 1951                           |
|   | Sewage disposal system; enters houses; 190 (Carrier of dengue)  | Gater                                    | 1929                           |
|   | Ground pools, ditches, cesspools, sewage filled drains and artificial containers; bites man indoors and outdoors at night; 242°   | Delfinado                                | 1966                           |
|   | Collections of water near houses; ---; 242  | Bohart                                   | 1945                           |
|   | Borrow pits; ---; 242   | Bick                                     | 1949                           |
|   | ---; experimental transmission of "Dengue" fever, April, May, July-Sept.; 242   | Simmons et al.                           | 1931                           |
|   | Artificial containers, ground pools; enters houses, April -August; 257°   | Bohart & Ingram                          | 1946                           |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE                                     |
|--|---|--|--|
| <i>CULEX raptor</i><br>Edwards         | ---; ---; 59, 70, 143, 144 (Natural pools, shallow wells, artificial containers)<br>---; May, Jul.-Oct.; 143  | Barraud  | 1934<br>1924 b                           |
| <i>reidi</i><br>Colless                | Lower axils of nipa palms; ---; 190. Shaded pools of fresh or slightly brackish water; ---; 242°.<br>---; ---; 280  | Delfinado  | 1966                                     |
| <i>rubensis</i><br>Sasa &<br>Takahashi | Slow, fresh water with vegetation; Aug.; 158  | La Casse &<br>Yamaguti   | 1950                                     |
| <i>rubithoracis</i><br>Leicester       | ---; ---; 59, 76, 143, 145, 190, 277 (Ponds)<br>---; ---; 70<br>---; ---; 77, 158<br>Swampy ground; ---; 139<br>---; ---; 146, 149  | Barraud<br>Carter<br>Hsiao &<br>Bohart<br>Mattingly<br>Brug &<br>Edwards | 1934<br>1950 a<br>1946<br>1949 a<br>1931 |
|  | Fresh clean ground water, natural ponds, rice paddies, irrigation or drainage ditches and margins of slowly moving streams; ---; 158. Clear grassy pools and forage paddies; enter houses, attracted by light; 242<br>---; enter houses, Aug.; 158<br>---; enters houses; 277 | Delfinado  | 1966                                     |
|  | Clean water, hyacinth ponds; ---; 280   | Mitamura &<br>Kitaoka  | 1950                                     |
| <i>ryukyuensis</i><br>Bohart           | Artificial containers, cut bamboo stumps, shaded, clean or foul water; ---; 158   | La Casse &<br>Yamaguti   | 1950                                     |
|  | Artificial containers along streams, rock holes; damp rocks along streams; 257  | Bohart &<br>Ingram   | 1946                                     |
| <i>salisburyensis</i><br>Theobald      | ---; ---; 332   | Stone et al.   | 1959                                     |
| <i>seniori</i><br>Barraud              | ---; ---; 143   | Barraud  | 1934                                     |
| <i>sergenti</i><br>Theobald            | ---; ---; 317<br>---; ---; 354  | Irfan &<br>Vogel<br>Martini  | 1927 +<br>1928 +                         |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|--|---|--|--|
| <i>CULEX shakujiensis</i><br>Ogasawara | ---; ---; 158   | Ogasawara  | 1939   |
| <i>shebbearei</i><br>Barraud           | ---; ---; 59, 139, 143 (Bamboo stumps)<br>Tree holes; ---; 70<br>Tree holes, bamboo stumps; ---; 76. ---; ---; 144<br>---; June-Aug.; 76<br>Tree holes; Sept.; 143<br>Large pitcher plant; ---; 145   | Hsiao<br>Wijesundara<br>Bohart<br>Wu<br>Barraud<br>Barraud   | 1945<br>1942<br>1946<br>1936<br>1924 d<br>1934                                   |
| <i>sibiricus</i><br>Kiseleva           | ---; ---; 256   | Kiseleva   | 1936   |
| <i>simplicicornis</i><br>Edwards       | ---; ---; 145   | Edwards  | 1932 +   |
| <i>sinaiticus</i><br>Kirkpatrick       | ---; ---; 2, 270 (Permanent water with little or no vegetation, ditches, ponds, wells)<br>---; ---; 154, 158<br>---; ---; 233, 332  | Edwards<br>Stone<br>Stone et al.   | 1941<br>1961<br>1959   |
| <i>sinensis</i><br>Theobald            | ---; ---; 11. ---; Jan., July-Aug., Oct.-Dec.; 143<br>---; ---; 59, 70, 77, 143, 158, 168, 190, 242, 257, 277, 294, 337 (Rice fields and large weedy pools, bites man in houses at night)<br>Rice fields, large weedy pools; ---; 76<br>---; enters houses at night to bite, hilly regions; 76°. ---; ---; 76, 158, 257 (Rice fields, large weedy pools, hilly stream bed pools). Rice fields; damp rocks in woods, enters houses at night to bite; 257°<br>Rice fields; ---; 77<br>Rice fields; ---; 143<br>---; ---; 145<br>---; ---; 146, 149<br>Rice fields, weedy ponds, pools in streams; in houses; 158°, 256°<br>Fresh ground water; ---; 158 | Barraud<br>Delfinado<br>Chang<br>Bohart & Ingram<br>Chow<br>Fletcher<br>Edwards<br>Brug & Edwards<br>Hsiao & Bohart<br>La Casse & Yamaguti | 1924 b<br>1966<br>1939<br>1946<br>1950<br>1924<br>1924 +<br>1931<br>1946<br>1950 |
|  | ---; naturally infected with <i>Filaria bancrofti</i> ; 158   | Yamada & Komori  | 1927   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|--|---|---|--|
| <i>CULEX sinensis</i><br>Theobald<br>(cont.) | ---; ---; 158*<br><br>Por's, pools; poor intermediate host of filaria,<br>rare; 168°<br><br>Stream bed pool in hilly country; enters houses,<br>bites man at night; 168   | Manson-Bahr<br><br>Hsiao<br><br>Barnett &<br>Toshioka   | 1959<br><br>1948<br><br>1951   |
| <i>sitiens</i><br>Wiedemann                  | Rice fields, large weedy pools; ---; 242<br><br>Inland salt or alkalins area; ---; 2, 270<br><br>---; ---; 25, 242, 257 (Fresh and brackish water,<br>bites man). Ground pool with algae, hot spring,<br>bamboo stumps, fox holes near beach; ---; 242<br><br>Swamps and natural pools; Sept.; 70°<br><br>Brackish water in swamps; ---; 70<br><br>---; naturally infected with <i>Wuchereria malayi</i> ; 70.<br>---; naturally infected with <i>W. bancrofti</i> ; 191<br><br>Rice fields, stagnant swamps; in houses, Dec.; 76<br><br>Brackish pools; ---; 76, 158<br><br>---; ---; 76 (Enters houses, bites at night).<br>---; ---; 139, 146 (Brackish pools, enters houses,<br>bites at night)<br><br>---; ---; 77<br><br>Ground pools, rice fields, marshes; common; 143<br><br>Brackish water; Dec.; 143<br><br>---; naturally infected with <i>W. bancrofti</i> ; 143<br><br>---; surroundings of harbour, Aug.; 143<br><br>---; enters houses; 143<br><br>---; June; 143°<br><br>Brackish water; in villages near sea; 144<br><br>Irrigation channels; ---; 144<br><br>Salt water; ---; 145<br><br>---; ---; 146, 190<br><br>---; ---; 149. Brackish water and ponds; vegetation<br>in woods; 257. Highly polluted water; ---; 277 | Bohart<br><br>Edwards<br><br>Delfinado<br><br>James<br><br>Lee<br><br>Carter<br><br>Riley<br><br>Bohart<br><br>Hsiao<br><br>Faust<br><br>Roy & Brown<br><br>Barraud<br><br>Raghavan<br><br>Barraud<br><br>Iyengar<br><br>Senior-White<br><br>Borel<br><br>Cruickshank<br>& Wright<br><br>Edwards<br><br>Brug &<br>Edwards<br><br>Bohart &<br>Ingram | 1945<br><br>1941<br><br>1966<br><br>1914<br><br>1944<br><br>1948<br><br>1932<br><br>1946<br><br>1945<br><br>1926 a<br><br>1954<br><br>1924 e<br><br>1961<br><br>1924 b<br><br>1933 a<br><br>1934<br><br>1930 a<br><br>1914<br><br>1924 +<br><br>1931<br><br>1946 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                            | AUTHOR                    | DATE   |
|--|--|---------------------------|--------|
| <i>CULEX</i><br><i>sitiens</i><br>Wiedemann<br>(cont.) | ---; bites man at night; 168°  | Barnett &<br>Toshioka     | 1951   |
|  | Salt water; ---; 190   | Edwards                   | 1924 + |
|  | Drains; ---; 190   | Milne                     | 1933   |
|  | ---; sand banks; 190   | Strahan &<br>Norris       | 1934   |
|  | Fresh and brackish water; ---; 242   | Bohart                    | 1945   |
|  | Sunny polluted water; ---; 277   | Causey                    | 1937   |
|  | ---; enters houses; 277  | Barraud &<br>Christophers | 1931   |
|  | Tidal marsh, obstructed drains, artificial containers,<br>sometimes in brackish water; ---; 280    | Colless                   | 1957 a |
| <i>spathifurca</i><br>(Edwards)                        | ---; ---; 70, 145, 146, 190, 191, 242, 277   | Delfinado                 | 1966   |
|  | ---; ---; 149  | Brug &<br>Edwards         | 1931   |
|  | Brackish water, swamps, pools, canals, rice fields,<br>artificial containers; ---; 277             | Causey                    | 1937   |
|  | Depressions shielded by thick bushes and tall<br>grasses and fern, artificial containers; ---; 280 | Colless                   | 1957 a |
| <i>squamosus</i><br>Taylor                             | Slow moving rivulet, swamp, canal; ---; 147  | Brug                      | 1934 + |
| <i>stylifurcatus</i><br>Carter &<br>Wijesundara        | ---; ---; 70   | Carter                    | 1950 a |
| <i>sumatranus</i><br>Brug                              | Pitcher plants; ---; 76  | Bohart                    | 1946   |
|  | ---; ---; 139  | Hsiao                     | 1945   |
|  | Pitcher plant in swamp; ---; 149   | Brug                      | 1931 c |
| <i>summarosus</i><br>Dyar                              | ---; naturally infected with <i>Wuchereria bancrofti</i> ;<br>242                                  | Rozeboom<br>& Cabrera     | 1964   |
| <i>tenuipalpis</i><br>Barraud                          | Roadside pool; at high altitudes, October; 143   | Barraud                   | 1924 e |
|  | Spring pool, pond; ---; 143, 146   | Brug                      | 1931 a |
| <i>termi</i><br>Thurman                                | Elephant tracks in marsh with highly polluted water<br>along edges of streams; ---; 277            | Thurman                   | 1955   |
| <i>territans</i><br>Walker                             | ---; ---; 256, 317   | Stone et al.              | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                               | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR       | DATE   |
|---------------------------------------|--|--------------|--------|
| <i>CULEX thalassius</i><br>Theobald   | ---; ---; 302  | Stone et al. | 1961   |
| <i>theileri</i><br>Theobald           | ---; ---; 28, 35, 118, 143, 150, 256, 303, 318, 321, 345, 350 (Reservoirs with vegetation, enters houses, bites man) | Shtakelberg  | 1937   |
|                                       | Large stream pools; ---; 31. Large open pools; ---; 143  | Barraud      | 1924 e |
|                                       | ---; ---; 59, 150, 151, 235 (Large ground pools, stream pools and marshes)   | Barraud      | 1934   |
|                                       | Rice fields, pool, rock holes, artificial containers with polluted water; ---; 76                                    | Galliard     | 1939   |
|                                       | Semi-permanent ground pools; ---; 76. ---; ---; 144  | Bohart       | 1946   |
|                                       | ---; March-May, Aug., at 4000-6000 feet; 143. ---; at 7000 feet, Oct.; 235. ---; ---; 302, 342                       | Barraud      | 1924 b |
|                                       | ---; ---; 143, 150, 166, 303, 318, 321, 326, 345, 350 (Stagnant reservoirs, canals with vegetation)                  | Monchadskii  | 1936   |
|                                       | Bogs and swamps; ---; 150  | Gutzevich    | 1948 + |
|                                       | ---; ---; 270 (Ditches, ponds, wells, pools with or without vegetation)  | Edwards      | 1941   |
|                                       | ---; ---; 317  | Anonvrous    | 1944   |
| <i>tigripes</i><br>Grandpre & Charmoy | ---; ---; 2, 270 (Ditches, ponds, wells, shaded forest pools with or without vegetation, artificial containers)      | Edwards      | 1941   |
|                                       | ---; ---; 242  | Bezzi        | 1913   |
| <i>tipuliformis</i><br>Theobald       | ---; ---; 31   | Bedford      | 1920   |
|                                       | ---; ---; 35, 150, 317   | Edwards      | 1921 + |
|                                       | ---; ---; 76, 158. Small weedy rock pools; at high altitudes; 143  | Barraud      | 1924 e |
|                                       | ---; ---; 118  | Kandelaki    | 1927   |
|                                       | ---; ---; 139, 256. ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 158                              | Yamada       | 1928   |
|                                       | ---; 5000 feet, March, winter months; 143. ---; Oct.; 235  | Barraud      | 1924 b |
|                                       | River bank pools; Jan.; 151  | Barraud      | 1920   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                | DATE   |
|--|--|-----------------------|--------|
| <i>CULEX</i><br><i>tipuliformis</i><br>Theobald<br>(cont.) | Wells; ---; 151  | Christophers & Shortt | 1921 b |
|  | Aqueduct with slimy filamentous algae, open drain; May-June; 154   | Buxton                | 1924 a |
|  | Marshes, stream pools; ---; 154, 302   | Barraud               | 1921   |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 158*  | Manson-Bahr           | 1959   |
|  | ---; naturally infected with <i>W. bancrofti</i> ; 158   | Yamada & Komori       | 1927   |
|  | ---; ---; 321  | Rybinsky              | 1933   |
|  | ---; ---; 342  | Anonymous             | 194 c  |
|  | ---; ---; 345  | Shingarev             | 1926   |
|  | ---; ---; 350  | Galliard              | 1927   |
|  | ---; ---; 354  | Séguy                 | 1924   |
| <i>torrentium</i><br>Martini                               | Clear waters, between grasses, wells, flood puddles; May-Sept.; 256. ---; ---; 317   | Martini               | 1931   |
|  | Streams with vegetation; ---; 256  | Martini               | 1928 + |
|  | ---; ---; 321  | Rybinsky              | 1933   |
| <i>tricontus</i><br>Delfinado                              | ---; ---; 242  | Delfinado             | 1966   |
| <i>trifidus</i><br>Edwards                                 | ---; ---; 146  | Edwards               | 1926 + |
| <i>tritaeniorhynchus</i><br>Giles                          | Sunlit, shallow water, rice fields, Aug.-Sept.; 35   | Trofimov              | 1936   |
|  | Rice field, river bed; ---; 70   | Senior-White          | 1920 a |
|  | ---; May-Nov., naturally infected with <i>Wuchereria malayi</i> ; 70   | Carter                | 1948   |
|  | Pools, rice fields containing decaying vegetation, bomb craters; bites at night; 76°   | Tseng & Wu            | 1951   |
|  | Semi-permanent ground pools; naturally and experimentally infected with <i>W. bancrofti</i> , natural carrier of Japanese "B" encephalitis; 76 | Bohart                | 1946   |
|  | Ponds, pools, ditches, rice fields; enters houses, possible vector of filariasis; 76, 194°   | Hsiao                 | 1946   |
|  | Marshes, creeks; ---; 76   | Chang                 | 1939   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|--|---|--|--|
| <i>CULEX tritaeniorhynchus</i><br>Giles<br>(cont.) | ---; experimentally infected with <i>Wuchereria malayi</i> , common in July and August; 76. ---; ---; 149°.<br>---; carrier of <i>W. malayi</i> ; 190<br>---; ---; 76, 143, 151, 158, 256, 342 (Reservoirs with fresh water, pits, rice fields, enters houses)<br>---; ---; 77<br>---; ---; 139 (Ponds, ditches, rice fields, enters houses, bites frequently at night). ---; ---; 146, 194 (Ditches, rice fields, enters houses, bites at night)<br>---; enters houses, April, June-Dec.; 143<br>---; May; 143. ---; ---; 235<br>---; ---; 143, 145, 158 (Ground pools, rice fields, marshes)<br>Swamps, streams, artificial containers with or without vegetation; enters houses; 144<br>Ponds, wells; ---; 145, 146, 149<br>---; March; 149<br>Rice fields, reservoirs, bogs and swamps, pits and ditches; ---; 150*<br>---; ---; 150°, 158*, 256*<br>---; ---; 151, 256, 342 (Swamps, clear water, rice fields)<br>---; Oct.-Nov.; 151<br>Marshes, clear water, foot prints; ---; 154°, 159°<br>In floating debris; ---; 154<br>Ponds, ditches, rice fields, wells, artificial containers; enters houses, poor intermediate host of <i>W. bancrofti</i> , experimentally and naturally infected with Japanese "B" encephalitis; 158<br>Drains, cesspools, slow streams; ---; 158°<br>---; experimentally infected with <i>W. bancrofti</i> ; 158*. ---; ---; 256*. Rice paddies, ground pools, clean or polluted water, wells, stream margins, rock pools, spring hole, artificial containers; enters houses after dusk, May-August; 257° | Hu<br>Shtakelberg<br>Edwards<br>Hsiao<br>Senior-White<br>Barraud<br>Barraud<br>Borel<br>Brug<br>Stanton<br>Gutzevich<br>Gutzevich<br>Monchadskii<br>Barraud<br>Buxton<br>Austen<br>Hsiao & Bohart<br>Sasa & Sabin<br>Bohart & Ingram | 1940<br>1937<br>1921 a<br>1945<br>1934<br>1924 b<br>1934<br>1926<br>1931 a<br>1915<br>1948 +<br>1943<br>1936<br>1920<br>1924 a<br>1921<br>1946<br>1950<br>1946 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR              | DATE   |
|--|---|---------------------|--------|
| <i>CULEX tritaeniorhynchus</i><br>Giles<br>(cont.) | ---; experimental transmission of West Nile virus; 158  | Kitaoka             | 1950   |
|  | ---; possible vector of Japanese "B" encephalitis; 158. Ponds, rice fields, ground pools, ditches, artificial containers; bites man at night, enters houses, probable vector of Japanese "B" encephalitis; 168° | Barnett & Toshioka  | 1951   |
|  | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 158  | Yamada & Komori     | 1927   |
|  | ---; June-Nov.; 158   | Mitamura & Kitaoka  | 1950   |
|  | ---; bites at night; 158°   | La Casse & Yamaguti | 1950   |
|  | ---; poor intermediate host of <i>W. bancrofti</i> , experimentally and naturally infected with Japanese "B" encephalitis; 168  | Hsiao               | 1948   |
|  | ---; ---; 174, 345  | Stone et al.        | 1959   |
|  | Swamps; enters houses; 190  | Milne               | 1933   |
|  | ---; all year; 190  | Kingsbury           | 1933   |
|  | Ponds, pools, hill streams with filamentous larvae; ---; 194*   | Anonymous           | 1946   |
|  | From ponds; ---; 194  | Chin                | 1936   |
|  | Clear, muddy, stained, exposed ground pools, creek pot holes, swamps; ---; 242  | Bick                | 1949   |
|  | Rice fields and salt marshes; ---; 242  | Bohart              | 1945   |
|  | Stagnant water in river beds, artificial reservoirs exposed to sun; ---; 256  | Petrishcheva        | 1948   |
|  | Pits and ditches with vegetation; ---; 256  | Pavlovskii          | 1947 + |
|  | ---; ---; 256°  | Chagin              | 1948   |
|  | ---; naturally and experimentally infected with, experimental transmission and potential vector of Japanese "B" encephalitis virus; 280   | Hale et al.         | 1959   |
|  | Obstructed drains, artificial containers, coconut shells, bamboo stumps; ---; 280   | Colless             | 1957 a |
|  | ---; naturally infected with Japanese "B" encephalitis; 294   | Sabin               | 1950   |
|  | Artificial containers; ---; 302   | Parr                | 1943 + |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE                                     |
|--|---|--|--|
| <i>CULEX tritaeniorhynchus</i><br>Giles<br>(cont.)           | ---; ---; 317<br><br>Footprints with clear water, marshes; ---; 342<br><br>---; enter houses to bite; 350°  | Anonymous<br>Kirkpatrick<br>Martini                    | 1944<br>1925 +<br>1931                   |
| <i>tritaeniorhynchus</i><br>var. <i>siamensis</i><br>Barraud | Stagnant, dirty ground water; ---; 147<br><br>Rice fields; enters houses; 277<br><br>Ground pools; ---; 277<br><br>---; ---; 337  | Lee<br>Barraud &<br>Christophers<br>Causey<br>Brug     | 1944<br>1931<br>1937<br>1939             |
| <i>tritaeniorhynchus</i><br><i>summorosus</i><br>Dyar        | ---; ---; 76, 77, 143, 144, 158, 168, 190, 194, 242,<br>257, 277, 337 (Ground pools, rice paddies, stream<br>margins and rock pools, enters houses, bite man).<br>Streams, ground pools; common; 242<br><br>Nyacinth ponds and ponds with <i>Pistia</i> and other<br>small aquatic plants; ---; 289   | Delfinado  | 1966<br>1957 a                           |
| <i>tuberis</i><br>Bohart                                     | Rock holes, seepage pools; ---; 257   | Bohart &<br>Ingram                                     | 1946                                     |
| <i>uncinatus</i><br>Delfinado                                | ---; ---; 242   | Delfinado  | 1966                                     |
| <i>uniformis</i><br>Theobald                                 | ---; ---; 11. Tree holes, bamboo stumps, water in<br>fallen tree; July-Oct.; 143<br><br>Tree holes and bamboo stumps; ---; 70<br><br>---; ---; 70 (Tree holes and rock holes). ---; ---;<br>143 (Rock pools)<br><br>Bamboo stumps; ---; 76<br><br>---; ---; 133, 242 (Bamboo stumps, tree and rock<br>pools in jungle). Rock and tree holes; ---; 242                   | Barraud<br>Wijesundara<br>Barraud<br>Chow<br>Delfinado | 1924 d<br>1942<br>1934<br>1949 c<br>1966 |
| <i>univittatus</i><br>Theobald                               | ---; ---; 143, 235 (Marshy pools, borrow pits,<br>stagnant drains and canals, shallow well, less<br>frequently in artificial containers and rice fields)<br><br>---; ---; 143, 233, 350 (Water holes, ditches,<br>canals, wells, artificial containers, enters houses<br>at night to bite)<br><br>Bogs and swamps; ---; 150<br><br>Marshes, stream pools; ---; 154, 174 | Barraud<br>Martini<br>Gutzevich<br>Barraud             | 1934<br>1931<br>1948 +<br>1921           |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|---|--|---|--|
| <i>CULEX univittatus</i><br>Theobald<br>(cont.) | Slow running streams with vegetation; Oct.-Nov.; 174, 302<br>---; ---; 280<br>---; ---; 303  | Parr<br>Senior-White<br>Keshish'yan   | 1943 +<br>1922<br>1941   |
| <i>vagans</i><br>Wiedemann                      | ---; ---; 59, 144. Semi-permanent ground pools;<br>experimentally infected with <i>Wuchereria bancrofti</i> ; 76<br>Lakes, pools, water pools in hilly streams containing<br>filamentous algae; ---; 76, 194<br>Ground pools, marshes; ---; 76<br>---; naturally infected with <i>W. bancrofti</i> ; 76, 143<br>Irrigation channels; March-April; 143<br>---; ---; 143, 235, 256 (Ground pools, marshes,<br>pools in stream beds)<br>Lakes, ponds, pools with filamentous algae; bites<br>at night, suitable host of <i>W. bancrofti</i> ; 158°<br>Fresh water ground pool; ---; 158 | Bohart<br>Hsiao<br>Chang<br>Manson-Bahr<br>Senior-White<br>Barraud<br>Hsiao &<br>Bohart<br>La Casse &<br>Yamaguti | 1946<br>1946<br>1939<br>1959<br>1928 a<br>1934<br>1946<br>1950 |
|   | Ground pools, ponds, lakes, clear water; bites man<br>at night, possible vector of filariasis; 168<br>Pools with filamentous algae; intermediate host of<br><i>W. bancrofti</i> ; 168°<br>Lakes; enters houses, Sept.; 194<br>Hill lakes, pools, hill country streams with<br>filamentous algae; ---; 194<br>---; ---; 242<br>Ditches, temporary pools in fields; enters houses;<br>256  | Barnett &<br>Toshioka<br>Hsiao<br>Chin<br>Anonymous<br>Bezzi<br>Pavlovskii  | 1951<br>1948<br>1936<br>1946<br>1913<br>1947 +                 |
| <i>virgatipes</i><br>Edwards                    | Rice fields, shaded water, well; ---; 76. ---; ---;<br>139<br>Open drains, trenches; ---; 76<br>---; ---; 143, 158<br>---; ---; 235<br>---; ---; 256   | Riley<br>Lamborn<br>Edwards<br>Edwards<br>Edwards   | 1932<br>1922<br>1922 c<br>1914 a<br>1921 +                     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                            | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                  | DATE         |
|------------------------------------|---|-------------------------|--------------|
| <i>CULEX viridiventer</i><br>Giles | Artificial containers in shade, ravine pools; ---; 70<br>---; ---; 143, 218, 235 (Tree holes and garden water tanks)  | Senior-White<br>Barraud | 1920<br>1934 |
|                                    | Water butts; Jan., March, April, Aug., Dec., at high altitudes; 143. ---; Sept.-Oct., at high altitudes; 235  | Barraud                 | 1924 d       |
|                                    | Tree holes and bamboo stalks; ---; 144  | Borel                   | 1926         |
| <i>vishnui</i><br>Theobald         | ---; ---; 59, 70, 143, 235 (Ground pools, rice fields, salt marshes)  | Barraud                 | 1934         |
|                                    | In swamps and natural pools; Sept.; 70°   | James                   | 1914         |
|                                    | Tree holes; ---; 70   | Wijesundara             | 1942         |
|                                    | Rice field; ---; 70   | Senior-White            | 1925         |
|                                    | Ground pools, rice fields, creeks; ---; 76  | Chang                   | 1939         |
|                                    | Ditches, streams, pools; ---; 76  | Chow                    | 1949 c       |
|                                    | Semi-permanent ground pools; ---; 76  | Bohart                  | 1946         |
|                                    | Open marshes, swamps; ---; 76   | Feng                    | 1935 a       |
|                                    | Ponds; ---; 76  | Hu                      | 1937         |
|                                    | ---; bites man at night; 76°  | Feng                    | 1938         |
|                                    | Pools, rice fields; common; 77  | Chow                    | 1950         |
|                                    | ---; ---; 139   | Anonymous               | 1915         |
|                                    | Tanks, temporary rain pools, irrigation channels; March-May; 143  | Senior-White            | 1928 a       |
|                                    | Swamps; enters houses, June-Dec.; 143   | Senior-White            | 1934         |
|                                    | Ground pools, rice fields, salt marshes; ---; 143.<br>---; ---; 151, 158. Rice paddy; vegetation in woods;<br>257. ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 337* | Bohart &<br>Ingram      | 1946         |
|                                    | Wells containing brackish water; ---; 143   | Jaswant<br>Singh        | 1933         |
|                                    | ---; naturally and experimentally infected with <i>W. bancrofti</i> , naturally infected with <i>W. malayi</i> ; 143  | Raghavan                | 1961         |
|                                    | Streams with vegetation; ---; 144   | Borel                   | 1930 a       |
|                                    | ---; enters houses, rare; 144°  | Galliard                | 1936 a       |
|                                    | ---; ---; 145*  | Manson-Bahr             | 1959         |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|---|--|------------------------|--------|
| <i>CULEX vishnui</i><br>Theobald<br>(cont.) | ---; naturally infected with <i>Wuchereria bancrofti</i> ; 145. ---; ---; 145, 146, 147, 149 (Lakes, river backwaters, small streams, drainage ditches, flood pools, rice fields, lagoons, occasionally in brackish water, bites man at night) | Farner                 | 1943   |
|   | Between plants on shores, ponds; ---; 145, 146, 147, 149   | Brug                   | 1931 a |
|   | ---; ---; 150  | Stone et al.           | 1959   |
|   | Stagnant reservoirs with vegetation, slow flowing streams; ---; 151, 158   | Monchadskii            | 1936   |
|   | Ponds, rice paddies, borrow pits, clean water with algae; June-Sept.; 158  | La Casse & Yamaguti    | 1950   |
|   | Drains; ---; 158°  | Sasa & Sabin           | 1950   |
|   | Ponds, pools,; bites at night, rare; 168°  | Hsiao                  | 1948   |
|   | Ground pools, ditches, rice paddies, irrigation banks; ---; 168  | Barnett & Toshioka     | 1951   |
|   | Pools, swamps, pitcher plants, traveller's palms; enters houses; 190°  | Milne                  | 1933   |
|   | ---; all year; 190   | Kingsbury              | 1933   |
|   | ---; ---; 190°   | Gater                  | 1933 b |
|   | Ground pools, rice fields, salt marshes; ---; 242  | Bohart                 | 1945   |
|   | Water covered with <i>Lemna</i> ; ---; 277   | Causey                 | 1937   |
|   | ---; enters houses; 277  | Barraud & Christophers | 1931   |
| <i>vorax</i><br>Edwards                     | ---; at 4000 feet elevation; 59. ---, at 6000 feet elevation, Jan., Aug.-Oct.; 143   | Barraud                | 1924 b |
|   | Tree holes, bamboos; ---; 70   | Wijesundara            | 1942   |
|   | Artificial containers, polluted ground water; experimentally infected with <i>Wuchereria bancrofti</i> ; 76. ---; ---; 144   | Bohart                 | 1946   |
|   | Sewage water, septic tanks and water containers in the gardens; ---; 76  | Feng                   | 1935 a |
|   | Old manure pit containing stagnant water; ---; 76  | Crook                  | 1939   |
|   | Sewage canals; ---; 76   | Hsiao                  | 1945   |
|   | Natural pools; ---; 76   | Chow                   | 1949 c |
|   | Mountain pools; ---; 77  | Chow                   | 1950   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|--|--|------------------------|--------|
| <i>CULEX vorax</i><br>Edwards<br>(cont.) | ---; ---; 139, 143, 158 (Natural pools, shallow wells, Barraud artificial collections of water). ---; common during rains; 143                                   | Barraud                | 1934   |
|  | Water high in organic matter, sunny artificial containers, predaceous; ---; 158°   | La Casse & Yamaguti    | 1950   |
|  | Ground pools; ---; 158. ---; ---; 190  | Hsiao & Bohart         | 1946   |
|  | Cess pits; ---; 158  | Lamborn                | 1922 + |
|  | Artificial containers, ground pools, tanks; rarely bites man; 168°   | Barnett & Toshioka     | 1951   |
|  | ---; ---; 256  | Stone et al.           | 1959   |
|  | Artificial containers, ground pools, rock holes; damp rocks, low growing vegetation; 257°  | Bohart & Ingram        | 1946   |
| <i>whitei</i><br>Barraud                 | Pools; ---; 143  | Barraud                | 1923 c |
|  | ---; June, Aug., Nov.; 143   | Barraud                | 1924 b |
|  | ---; ---; 143 (Ground pools, rice fields)  | Barraud                | 1934   |
|  | Rice fields; ---; 277  | Barraud & Christophers | 1931   |
| <i>whitmorei</i><br>(Giles)              | ---; ---; 59, 70   | Barraud                | 1934   |
|  | Pools in stream beds with vegetation; ---; 76  | Chang                  | 1939   |
|  | Semi-permanent ground pools; ---; 76   | Bohart                 | 1946   |
|  | Rice fields; ---; 76   | Chow                   | 1949 c |
|  | ---; bites in early evening; 76°   | Feng                   | 1938   |
|  | ---; June-July; 76   | Wu                     | 1936   |
|  | ---; ---; 76, 158, 168, 242, 294 (Ground water, rice paddies, pools and margins of slow moving streams, enters houses and bites at night). Rice fields; ---; 242 | Delfinado              | 1966   |
|  | Rice fields; ---; 77   | Chow                   | 1950   |
|  | ---; ---; 139. ---; experimentally infected with <i>Wuchereria bancrofti</i> ; 145   | Hsiao                  | 1945   |
|  | Submerged grasslands; ---; 143   | Lee                    | 1944   |
|  | Ground pools; ---; 143   | Roy & Brown            | 1954   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE                         |
|---|---|---|------------------------------|
| <i>CULEX whitmorei</i><br>(Giles)<br>(cont.)          | ---; April, June-Dec.; 143<br>---; rarely bites; 144°<br>---; ---; 145*, 158*<br>---; ---; 146, 149, 190<br><br>Clear fresh water pools with decaying vegetation;<br>bites man in early evening, suitable, intermediate<br>host of <i>Wuchereria bancrofti</i> ; 158° | Senior-White<br>Galliard<br>Manson-Bahr<br>Brug & Edwards | 1934<br>1938<br>1959<br>1931 |
|   | Rice paddies, margins of slow moving streams; ---; 158<br>---; experimentally infected with <i>W. bancrofti</i> ; 158<br>---; naturally infected with <i>W. bancrofti</i> ; 158   | La Casse &<br>Yamaguti<br>Yamada<br>Yamada &<br>Komori    | 1950<br>1928<br>1927         |
|   | Clear fresh water pool with sandy bottom containing<br>much decayed vegetable matter; bites vigorously in<br>the evening, experimentally suitable intermediate<br>host of <i>W. bancrofti</i> ; 168°  | Hsiao   | 1948                         |
|   | Rice paddies, streams; enter houses, bites man at<br>night, possible vector of filariasis; 168  | Barnett &<br>Toshioka                                     | 1951                         |
|   | Ground pools; ---; 242<br>---; enters houses, Feb.-March; 242°  | Bohart<br>Rozeboom<br>& Cabrera                           | 1945<br>1964                 |
|   | ---; ---; 256   | Stone et al.  | 1959                         |
|   | ---; ---; 277   | Causey  | 1937                         |
| <i>yaoi</i><br>Tung                                   | ---; ---; 76  | Stone et al.  | 1959                         |
| <i>yeageri</i><br>Baisas                              | Forest streams; ---; 242  | Delfinado   | 1966                         |
| <i>CULICIOMYIA pallidothorax</i><br>Theobald          | ---; ---; 70<br>---; ---; 139<br>---; naturally infected with <i>Wuchereria malayi</i> ; 143  | Senior-White<br>Anonymous<br>Raghavan                     | 1927<br>1915<br>1961         |
| <i>CULISETA alaskaensis</i><br>(Ludlow)               | ---; ---; 162<br>Small standing reservoirs; ---; 256  | Martini<br>Pavlovskii                                     | 1930<br>1947 +               |
| <i>alaskaensis</i><br><i>vasilievi</i><br>(Shingarev) | ---; ---; 162, 256, 326   | Shtakelberg   | 1937                         |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)            | AUTHOR        | DATE   |
|--|--|---------------|--------|
| <i>CULISETA annulata</i><br>Schrank    | Wells with high salt content; ---; 35  | Achundow      | 1935   |
|  | Artificial containers with stagnant water and decomposing organic matter; ---; 118 | Roukhadze     | 1929   |
|  | ---; bites man; 118°   | Roukhadze     | 1926 b |
|  | ---; ---; 150  | Gutzevich     | 1943   |
|  | ---; Feb.; 151   | Barraud       | 1920   |
|  | ---; May-June; 154   | Buxton        | 1924 a |
|  | ---; ---; 159  | Barraud       | 1921   |
|  | ---; ---; 162, 256, 321, 345 (Pools and shaded reservoirs)                         | Monchadskii   | 1936   |
|  | ---; Aug.-Nov.; 174. Swamps, seepage pools, artificial containers; Jan.-Dec.; 302  | Parr          | 1943 + |
|  | In reservoirs and marshes; ---; 256  | Shtakelberg   | 1937   |
|  | ---; March; 317  | Martini       | 1930   |
|  | ---; ---; 318  | Gutzevich     | 1948 + |
|  | ---; enters houses; 321  | Rybinsky      | 1933   |
|  | ---; ---; 342  | Galliard      | 1927   |
| <i>annulata subochrea</i><br>(Edwards) | ---; ---; 150, 151, 166, 303, 326, 342 (Alkaline and shaded reservoirs)            | Monchadskii   | 1936   |
|  | Pools with vegetation; ---; 150, 151, 326, 342                                     | Shtakelberg   | 1937   |
| <i>borealis</i><br>Schingarev          | Shallow water, ditches, woody and bushy areas; ---; 256                            | Pavlovskii    | 1947 + |
| <i>bergrothi</i><br>(Edwards)          | ---; ---; 256  | Stone et al.  | 1959   |
| <i>fumipennis</i><br>(Stephens)        | Reservoirs with grassy vegetation; ---; 256, 321                                   | Shtakelberg   | 1937   |
|  | ---; ---; 317  | Anonymous     | 1944   |
|  | Shallow reservoirs with grassy vegetation; ---; 345                                | Monchadskii   | 1936   |
| <i>giphyoptera</i><br>(Schiner)        | Stagnant reservoirs, shaded springs with cool water; ---; 256                      | Shtakelberg   | 1937   |
|  | Rock holes in stream beds; ---; 317  | Irfan & Vogel | 1927 + |
|  | ---; ---; 321  | Rybinsky      | 1933   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|--|---|--|--|
| <i>CULISETA kanayanensis</i><br>(Yamada) | Ground pool with decaying vegetation; bites by night; 158°<br>---; ---; 158°  | La Casse & Yamaguti<br>Hsiao & Bohart                              | 1950<br>1946                                   |
| <i>longiareolata</i><br>Macquart         | ---; ---; 35<br>---; ---; 143<br>---; ---; 151<br>---; ---; 302<br>---; ---; 342  | Achundow<br>Edwards<br>Kirkpatrick<br>Anonymous<br>Anonymous       | 1935<br>1932 +<br>1925 +<br>1944<br>1944 c     |
| <i>morsitans</i><br>(Theobald)           | Small pits in marsh; April; 154<br>Rock quarry pools; ---; 154<br>Stagnant reservoirs with vegetation; ---; 256, 321, 345 (Bites man)<br>---; ---; 317<br>---; active August, September; 321<br>---; ---; 342 | Buxton<br>Barraud<br>Shtakelberg<br>Martini<br>Rybinsky<br>Theodor | 1924 a<br>1921<br>1937<br>1930<br>1933<br>1924 |
| <i>nipponica</i><br>La Casse & Yamaguti  | Clear ground pool with decaying vegetation; Aug.; 158   | La Casse & Yamaguti  | 1950   |
| <i>niveitaeniata</i><br>(Theobald)       | ---; ---; 76°<br>---; ---; 76, 143 (Hill stream bed pools)<br>---; Feb.-March, Dec.; 143. ---; May; 235   | Bohart<br>Hsiao<br>Barraud   | 1946<br>1945<br>1924 d                         |
| <i>ochroptera</i><br>(Peus)              | ---; - -; 173, 321<br>Grassy areas; ---; 256  | Stone et al.<br>Pavlovskii   | 1959<br>1947 +                                 |
| <i>richardii</i><br>(Ficalbi)            | ---; ---; 342   | Anonymous  | 1944 c   |
| <i>setivalva</i><br>(Monchadskii)        | Marshes; ---; 31, 321 (Bites man)<br>---; ---; 256, 317<br>---; ---; 318  | Shtakelberg<br>Stone et al.<br>Gutzevich                           | 1937<br>1959<br>1948 +                         |
| <i>siberiensis</i><br>Ludlow             | ---; July; 256  | Ludlow   | 1919   |
| <i>silvestris</i><br>(Shingarev)         | ---; ---; 256   | Stone et al.   | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR          | DATE   |
|--|---|-----------------|--------|
| <i>CULISETA</i><br><i>subochrea</i><br>(Edwards)           | ---; ---; 150, 151, 162, 342  | Martini         | 1930   |
|  | ---; ---; 154   | Séguy           | 1924   |
|  | Swamps; ---; 302  | Parr            | 1943 + |
|  | Deep shafts or shaded ditches; ---; 326   | Kazantzev       | 1932   |
| <i>FICALBIA</i><br><i>aurea</i><br>(Leicester)             | ---; ---; 143, 145, 190, 277, 280   | Stone et al.    | 1959   |
| <i>chamberlaini</i><br>(Ludlow)                            | ---; ---; 59, 70 (Pools and ponds with vegetation)  | Barraud         | 1934   |
|  | Weedy pools; ---; 143, 235  | Barraud         | 1923 b |
|  | ---; among brush wood in cold weater, July, Dec.; 143   | Barraud         | 1929   |
|  | ---; ---; 144, 145, 146, 149, 277 (Irrigation ditches with algae and vegetation, along river banks, in fish ponds and water tank) | Delfinado       | 1966   |
|  | Well vegetated pools and ponds; ---; 242  | Bohart          | 1945   |
| <i>chamberlaini</i><br>var. <i>intermedia</i><br>(Barraud) | ---; ---; 59, 70, 143, 242  | Barraud         | 1929   |
| <i>chamberlaini</i><br><i>clavipalpus</i><br>(Theobald)    | ---; ---; 70, 143, 235  | Stone et al.    | 1959   |
| <i>chamberlaini</i><br><i>metallica</i><br>(Leicester)     | ---; ---; 77, 144, 146, 149, 190, 242, 277, 280   | Stone et al.    | 1959   |
| <i>deguzmanae</i><br>Mattingly                             | Tree holes and bamboo stumps; mainly at high altitudes; 242   | Delfinado       | 1966   |
| <i>elegans</i><br>(Taylor)                                 | Hoof prints at edge of swamp, fresh water holes; ---; 149   | Lee             | 1944   |
|  | ---; ---; 190, 242, 277 (Cattle hoof prints with decaying vegetation at edge of swamps, fresh water holes and dams)               | Delfinado       | 1966   |
| <i>fusca</i><br>(Leicester)                                | ---; ---; 11, 190 (Forest tree holes at ground level)   | Barraud         | 1934   |
|  | ---; ---; 77  | Stone et al.    | 1959   |
|  | Forest tree holes at ground level; ---; 280   | Edwards & Given | 1928   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE   |
|--|--|---|--|
| <i>FICALBIA</i><br><i>hybrida</i><br>(Leicester) | Ground pools with <i>Pistia</i> ; ---; 70, 143, 144, 145,<br>146, 149, 190, 242, 277<br>---; April, Aug.-Jan., enters houses; 143<br>---; ---; 235<br>---; ---; 280  | Delfinado<br>Senior-White<br>Barraud<br>Barraud                                   | 1966<br>1934<br>1924<br>1929                   |
| <i>jacksoni</i><br>Mattingly                     | ---; ---; 76<br>Grassy hill-side swamp; ---; 139   | Stone et al.<br>Mattingly   | 1959<br>1949                                   |
| <i>ludlowae</i><br>Brunetti                      | Hollow bamboo stalks; ---; 144, 242  | Borel   | 1930 a   |
| <i>luzonensis</i><br>(Ludlow)                    | ---; ---; 59. ---; Sept.; 143<br>Rice fields; ---; 70<br>---; ---; 70, 77, 139, 143, 144, 145, 146, 190, 242,<br>257, 277 (Artificial containers, roadside ditches,<br>sago palm trough)<br>Weedy ponds or swamps; ---; 76<br>---; ---; 77, 139, 143, 144, 149, 190, 242, 277<br>(Weedy ponds in swamps)<br>---; Jan.; 242 | Senior-White<br>Senior-White<br>Delfinado<br>Bohart<br>Hsiao<br>Dyar &<br>Shannon | 1934<br>1925<br>1966<br>1946<br>1945<br>1925   |
|  | ---; dense banana grove, low growing vegetation;<br>257. ---; attracted to lights, Oct.-Dec.; 277<br>Rice fields; ---; 277<br>Obstructed drains; ---; 280  | Bohart &<br>Ingram<br>Barraud &<br>Christophers<br>Colless                        | 1946<br>1931<br>1931<br>1957 a                 |
| <i>metallica</i><br>(Leicester)                  | Rice field; ---; 146, 149, 190<br>Swamps with vegetation, hoof prints; ---; 190<br>Hyacinth ponds; ---; 280  | Brug<br>Lee<br>Colless  | 1931 a<br>1944<br>1957 a                       |
| <i>minima</i><br>(Theobald)                      | ---; ---; 70, 144, 145, 146, 190<br>Weedy ponds or swamps; ---; 76<br>---; ---; 139<br>---; in jungle; 143. ---; ---; 235, 242<br>Vegetated ditch; ---; 277<br>Very clean water, hyacinth ponds; ---; 280  | Stone et al.<br>Bohart<br>Hsiao<br>Barraud<br>Causey<br>Colless                   | 1959<br>1946<br>1945<br>1929<br>1937<br>1957 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                           | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                                      | AUTHOR                                   | DATE                   |
|-----------------------------------|--|--|------------------------|
| <i>GRABHAMIA</i>                  |  |  |                        |
| <i>broquetii</i><br>Theobald      | ---; ---; 76, 77   | Stone et al.                             | 1959                   |
| <i>HAEMAGOGUS</i>                 |  |  |                        |
| <i>discrepans</i><br>(Edwards)    | Bamboos; ---; 143<br>---; in jungle; 143   | Barraud<br>Edwards                       | 1934<br>1922 b         |
| <i>tripunctata</i><br>Theobald    | ---; jungle; 143   | Barraud                                  | 1929 a                 |
| <i>HARPAGOMYIA</i>                |  |  |                        |
| <i>coeruleovittata</i><br>Ludlow  | ---; ---; 242  | Wharton                                  | 1947                   |
| <i>HEIZMANNIA</i>                 |  |  |                        |
| <i>achaetae</i><br>(Leicester)    | ---; ---; 190<br>---; ---; 277   | Edwards<br>Causey                        | 1928<br>1937           |
| <i>aurea</i><br>Brug              | ---; ---; 147  | Stone et al.                             | 1959                   |
| <i>aureochaeta</i><br>(Leicester) | ---; ---; 190<br>---; moist, densely shaded areas, feeds by day; 277°  | Edwards<br>Causey                        | 1928<br>1937           |
| <i>chandi</i><br>Edwards          | Tree holes; jungle; 143  | Edwards                                  | 1922 b                 |
| <i>communis</i><br>(Leicester)    | Hollow bamboo stalks; ---; 144<br>---; ---; 190  | Borel<br>Edwards                         | 1930 a<br>1928         |
| <i>complex</i><br>(Theobald)      | ---; ---; 59, 143<br>Hollow bamboo stalks; ---; 144<br>---; in jungle, feeds by day; 277°                    | Barraud<br>Borel<br>Causey               | 1934<br>1930 a<br>1937 |
| <i>covelli</i><br>Barraud         | ---; ---; 11, 59 (Tree holes and bamboo stump)<br>Tree holes; ---; 143<br>---; in jungle, feeds by day; 277° | Barraud<br>Barraud<br>Causey             | 1934<br>1929 a<br>1937 |
| <i>funerea</i><br>Leicester       | ---; ---; 143°. ---; jungle; 190<br>---; ---; 143, 190 (Tree holes)<br>Tree holes; ---; 280                  | Barraud<br>Barraud<br>Edwards &<br>Given | 1929 a<br>1934<br>1928 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|---|---|--|--|
| <i>HEIZMANNIA greenii</i><br>(Theobald) | Tree hole; ---; 70<br>Bamboo stumps; ---; 76<br>Tree holes; ---; 76<br>---; ---; 143<br>Hollow bamboo stalks; ---; 144<br>---; in jungle, bites by day; 277°  | Senior-White<br>Chow<br>Chow<br>Barraud<br>Borel<br>Causey | 1927<br>1949<br>1949 c<br>1929 a<br>1930 a<br>1937 |
| <i>himalayensis</i><br>Edwards          | Tree holes, bamboos; ---; 143   | Barraud  | 1929 a   |
| <i>indica</i><br>(Theobald)             | ---; ---; 31, 190<br>Bamboos, tree holes; jungle; 143<br>---; in jungle, feeds by day; 277°   | Edwards<br>Barraud<br>Causey                               | 1922 c<br>1929 a<br>1937                           |
| <i>lii</i><br>Wu                        | Tree holes, bamboo stumps; ---; 280<br>Bamboo stumps; ---; 76<br>---; Aug. and May; 76<br>---; ---; 168   | Barraud<br>Bohart<br>Wu<br>Stone et al.                    | 1934<br>1946<br>1936<br>1959                       |
| <i>macdonaldi</i><br>Mattingly          | ---; ---; 190   | Stone et al.   | 1959   |
| <i>metallica</i><br>(Leicester)         | Tree holes; ---; 143, 190<br>---; ---; 146, 149   | Barraud<br>Brug &<br>Edwards                               | 1929 a<br>1931                                     |
| <i>pilosa</i><br>Brug                   | Tree holes; virgin forest; 149<br>Tree holes, coconut shells, bamboo stumps; ---; 280   | Brug<br>Colless  | 1931 c<br>1957 a                                   |
| <i>reidi</i><br>Mattingly               | ---; ---; 143, 190, 277   | Stone et al.   | 1959   |
| <i>scintillans</i><br>Ludlow            | ---; ---; 145, 149, 242°, 280 (Forest area,<br>bamboo stumps and tree hole). Tree holes and<br>bamboo stumps; bites man in forest area; 190°<br>---; ---; 242 | Delfinado<br>Edwards                                       | 1966<br>1929                                       |
| <i>stonei</i><br>Mattingly              | ---; ---; 190, 277  | Stone et al.   | 1959   |
| <i>viridis</i><br>Barraud               | ---; forests; 143   | Barraud  | 1929 a   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|---|---|---|--|
| <i>HODGESIA bailyi</i><br>Barraud                 | ---; ---; 70<br><br>Small pool in swampy areas; ---; 143  | Carter<br>Barraud   | 1950 a<br>1934                                   |
| <i>malayi</i><br>Leicester                        | ---; ---; 70, 143, 144, 147, 190, 242 (Jungle pools among eroded roots and emergent tree trunks)<br><br>---; ---; 139   | Delfinado<br>Anonymous  | 1966<br>1915                                     |
|   | Small river, weedy lakes, near habitations; Dec.; 144 (Rare and troublesome)  | Borel   | 1928   |
|   | Jungle pools; ---; 242  | Bohart  | 1945   |
| <i>quasisanguinae</i><br>Leicester                | ---; ---; 145, 147, 190, 242 (Bites man in jungle)  | Delfinado   | 1966   |
| <i>LEICESTERIA dolichocephalus</i><br>(Leicester) | ---; bites at night; 144°   | Borel   | 1926   |
| <i>LOPHOCERATOMYIA barkeri</i><br>(Theobald)      | Jungle pools; ---; 190  | Smart   | 1914   |
| <i>minutissima</i><br>Theobald                    | Rock springs, ravines, river, coconut shells; ---; 70<br><br>Small, vegetation free, clear water, rock pools; ---; 144  | Senior-White<br>Borel   | 1920 a<br>1930 a                                 |
| <i>LUTZIA fuscanus</i><br>Wiedemann               | Irrigation channels; Sept.; 143<br><br>---; enters houses; 143<br><br>---; bite viciously during the day, Nov., Dec.; 143°<br><br>---; naturally infected with <i>Wuchereria malayi</i> ; 143<br><br>---; indoors, Aug.; 158<br><br>Natural collection of water, rice fields; in houses, in train near light; 277 | Senior-White<br>Iyengar<br>Senior-White<br>Raghavan<br>Mitamura &<br>Kitaoka<br>Barraud &<br>Christophers | 1928 a<br>1933 a<br>1934<br>1961<br>1950<br>1931 |
| <i>halifaxi</i><br>Theobald                       | ---; ---; 145, 190  | Edwards   | 1922 c   |
| <i>vorax</i><br>(Edwards)                         | Pools in stone excavation, in bed of hill stream 1000-1500 feet altitude, artificial containers, in villages in the hills; ---; 76  | Teng  | 1933 b   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                     | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|---|--|--|--|
| <i>LUTZIA vorax</i><br>(Edwards)<br>(cont.) | Ditches, barrel; ---; 76, 143, 158<br>---; ---; 139<br>---; ---; 144<br>Cesspits with algal growth; ---; 158   | Shtakelberg<br>Edwards<br>Borel<br>Lamborn                             | 1937<br>1922 c<br>1926<br>1922                 |
| <i>MALAYA geruerostris</i><br>Leicester     | ---; ---; 59, 139, 143, 144, 149, 190 (Pineapple plants)<br>---; ---; 59, 143, 190 (Water in leaf axils of large <i>Arum</i> )<br>Water in the axils of a large species of <i>Arum</i> ; Sept.; 70, 235<br>Water in pineapple leaves and other similar plants; ---; 70 | Hsiao<br>Barraud<br>Barraud  | 1945<br>1934<br>1926                           |
|   | Leaf axils in blossom; ---; 70, 146, 149, 190, 242<br>Leaf bases of banana, pineapple, <i>Colocasia</i> , local plant called "Tun-tun", stem of the plant; ---; 76   | Brug<br>Chow   | 1931 a<br>1949 c                               |
|   | Leaf axils; ---; 76<br>Leaf bases of <i>Colocasia</i> ; ---; 77<br>Leaf axils; May and Oct.; 143<br>---; Dec.; 143<br>In leaves of <i>Pandanus odoratissimus</i> and <i>Sanseveria latifolia</i> ; ---; 144<br>Leaf axils; ---; 257                                    | Bohart<br>Chow<br>Senior-White<br>Fletcher<br>Borel<br>Bohart & Ingram | 1946<br>1950<br>1934<br>1928<br>1930 a<br>1946 |
| <i>jacobsoni</i><br>(Edwards)               | Plant axils; ---; 280<br>Leaf bases of <i>Colocasia</i> ; ---; 77<br>---; ---; 143, 190 (Water in leaf bases of <i>Arum</i> )  | Colless<br>Chow<br>Barraud   | 1957 a<br>1950<br>1934                         |
| <i>splendens</i><br>(Meijero)               | Leaf axils of <i>Arum</i> ; ---; 149<br>Leaf axils of <i>Colocasia</i> sp.; ---; 145. ---; ---; 146  | Wharton<br>Wharton   | 1947<br>1947                                   |
| <i>MANSONIA africana</i><br>(Theobald)      | ---; ---; 146. On water plants, prefer <i>Pistia</i> and <i>Lemna</i> ; ---; 149, 337  | Bonne-Wepster  | 1930   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                               | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR               | DATE   |
|---------------------------------------|---|----------------------|--------|
| <i>MANSONIA annulata</i><br>Leicester | On <i>Pistia</i> ; ---; 145   | Bonne-Wepster        | 1930   |
|                                       | ---; swamp and forest regions; 145, 149, 190, 242<br>(Good host for semi-periodic <i>Wuchereria malayi</i> )  | Delfinado            | 1966   |
|                                       | Aquatic plants; ---; 149  | Farner               | 1943   |
|                                       | ---; enters houses in the evening, more so in the<br>rainy weather, start biting at 8:00 p.m.,<br>anthropophilic, naturally and experimentally infected<br>with <i>Wuchereria malayi</i> ; 149° | Brug &<br>de Rook    | 1930   |
|                                       | ---; naturally and experimentally infected with <i>W.</i><br><i>malayi</i> ; 149  | Carter               | 1950   |
|                                       | ---; experimentally infected with <i>W. malayi</i> ; 190  | Wharton              | 1957   |
|                                       | ---; carrier of <i>W. malayi</i> ; 190  | Hodgkin              | 1939   |
|                                       | ---; enters houses; 242°. ---; suspected vector of<br><i>W. m layi</i> ; 337  | Bohart               | 1945   |
|                                       | ---; June; 242  | Dyar &<br>Shannon    | 1925   |
|                                       | Fresh water ponds, pools, backwaters, marshes, with<br><i>Pistia</i> and <i>Eichhornia</i> ; ---; 59°, 70°, 143°, 144°,<br>145°, 146°, 149°, 242°, 277°, 337*                                   | Farner et al.        | 1946 + |
| <i>annulifera</i><br>(Theobald)       | ---; common; 59, 70, 143, 366   | Barraud              | 1934   |
|                                       | Tanks, ponds and marshes with dense growth,<br>vegetation, especially <i>Pistia stratiotes</i> ; ---; 70*   | Dasanayake<br>& Chow | 1954   |
|                                       | ---; Jan., Apr.-Dec., naturally infected with<br><i>Wuchereria malayi</i> ; 70. ---; all year; 143. ---;<br>experimentally infected with <i>W. malayi</i> ; 146, 190                            | Carter               | 1950   |
|                                       | ---; natural vector of <i>W. malayi</i> , Jan., Feb.,<br>Apr.-Dec.; 70, 143, 277  | Raghavan             | 1961   |
|                                       | Reservoirs and tanks densely covered with <i>Pistia</i> ;<br>naturally infected with <i>W. malayi</i> ; 143   | Sundar Rao           | 1936   |
|                                       | On leaves of <i>Pistia stratiotes</i> floating in water;<br>---; 143  | Iyengar              | 1933 b |
|                                       | ---; enters houses, naturally infected with <i>W.</i><br><i>bancrofti</i> ; 143   | Iyengar              | 1933 a |
|                                       | ---; ---; 143*  | Sundar Rao           | 1940   |
|                                       | ---; ---; 143*, 190°, 280°  | Delfinado            | 1966   |
|                                       | ---; ---; 144   | Galliard             | 1938   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                    | DATE   |
|---|---|---------------------------|--------|
| <i>MANSONIA annulifera</i><br>(Theobald)<br>(cont.) | On <i>Pistia stratiotes</i> ; in houses, anthropophilic, experimentally infected with microfilaria, carrier of <i>Wuchereria malayi</i> ; 145   | Kariadi                   | 1938   |
|   | In association with water plants of the genera <i>Ipomoea</i> ; naturally infected with <i>W. malayi</i> ; 145  | Wilcocks                  | 1944 d |
|   | On <i>Pistia stratiotes</i> ; ---; 146  | Bonne-Wepster             | 1937   |
|   | ---; carrier of <i>W. malayi</i> ; 146. ---; ---; 337   | Roy & Brown               | 1954   |
|   | Ponds, swamps, overgrown with vegetation; ---; 149  | Knight et al.             | 1944 + |
|   | <i>Pistia</i> plants; ---; 149  | Farner                    | 1943   |
|   | ---; enters houses; 149   | Brug &<br>de Rook         | 1930   |
|   | ---; Mar. and June; 149   | Stanton                   | 1915   |
|   | Roots of <i>Pistia stratiotes</i> ; experimentally infected with <i>W. malayi</i> ; 190   | Hodgkin                   | 1938   |
|   | ---; carrier of <i>W. malayi</i> ; 190  | Hodgkin                   | 1939   |
|   | ---; all year; 190  | Kingsbury                 | 1933   |
|   | ---; ---; 235   | Barraud                   | 1927   |
|   | Ponds and swamps containing <i>Pistia</i> ; ---; 242  | Bohart                    | 1945   |
|   | ---; enters houses; 277   | Barraud &<br>Christophers | 1931   |
|   | ---; Dec.; 277  | Causey                    | 1937   |
| <i>annulipes</i><br>Walker                          | ---; ---; 59  | Barraud                   | 1927   |
|   | ---; infected with <i>Wuchereria bancrofti</i> ; 143  | Feng                      | 1933 a |
|   | ---; ---; 145, 190, 242   | Edwards                   | 1922 c |
|   | ---; ---; 146   | Cooling                   | 1924   |
|   | Jungle, swamps, standing water with waterplants; enters houses in the evening, more so during rainy weather, anthropophilic, naturally and experimentally infected with <i>W. malayi</i> ; 149° | Brug &<br>de Rook         | 1930   |
|   | ---; March to June; 149   | Stanton                   | 1915   |
|   | ---; in houses, attracted to light; 277   | Barraud &<br>Christophers | 1931   |
| <i>aureosquamata</i><br>(Ludlow)                    | ---; ---; 149, 242  | Bohart                    | 1945   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                               | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR  | DATE                                   |
|---------------------------------------|--|---|--|
| <i>MANSONIA aurites</i><br>(Theobald) | ---; ---; 76<br>---; ---; 242  | Hsiao<br>Bezzi  | 1945<br>1913                           |
| <i>bonneae</i><br>Edwards             | ---; ---; 145<br>---; naturally and experimentally infected with <i>Wuchereria malayi</i> ; 190  | Farner<br>Wharton   | 1943<br>1957                           |
|                                       | ---; attracted to light; 277   | Barraud & Christophers  | 1931                                   |
|                                       | ---; April; 277  | Causey  | 1937                                   |
| <i>buxtoni</i><br>(Edwards)           | ---; 154, 302<br>---; marshes, bites viciously after sunset; 342°  | Stone et al.<br>Buxton  | 1959<br>1924 a                         |
| <i>crassipes</i><br>(van der Wulp)    | ---; ---; 11, 235<br>---; common; 59, 70, 143, 190   | Barraud<br>Barraud  | 1927<br>1934                           |
|                                       | Lakes with <i>Ipomoea</i> ; on grasses and shrubs, enters houses; 70. Lakes with vegetation; enters houses; 145                        | Carter  | 1950                                   |
|                                       | Weedy ponds; ---; 76°  | Bohart  | 1946                                   |
|                                       | ---; enters houses; 139  | Hsiao   | 1945                                   |
|                                       | ---; ---; 144  | Borel   | 1930 a                                 |
|                                       | ---; ---; 146, 149   | Brug & Edwards  | 1931                                   |
|                                       | ---; ---; 242  | Bonart  | 1945                                   |
|                                       | ---; ---; 277  | Causey  | 1937                                   |
| <i>dives</i><br>(Schiner)             | ---; ---; 133, 143, 144, 145, 190*, 242, 337*<br>(Forest swamps among rootlets of trees, rattans and palms, bites in and outdoor)      | Delfinado   | 1966                                   |
|                                       | ---; in the woods by day and in dwellings by night, naturally infected with <i>Brugia malayi</i> and <i>Wuchereria bancrofti</i> ; 242 | Cabrera & Rozeboom  | 1964                                   |
| <i>giblini</i><br>(Taylor)            | ---; ---; 77<br>---; ---; 145<br>---; ---; 147, 242<br>---; ---; 149, 190<br>---; ---; 277   | Stone et al.<br>Bonne-Wepster<br>Bohart<br>Brug & Edwards<br>Barraud & Christophers | 1959<br>1930 a<br>1945<br>1931<br>1931 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                      | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|--|--|------------------------|--------|
| <i>MANSONIA</i><br><i>indiana</i><br>Edwards | ---; ---; 59, 143 (Pools and swamps with vegetation)   | Barraud                | 1934   |
|  | In tanks, ponds and marshes with dense vegetation, especially <i>Pistia stratiotes</i> ; ---; 70*  | Dassanayake & Chow     | 1954   |
|  | Reservoirs and channel with <i>Pistia stratiotes</i> ; enters houses by day and night, naturally infected with <i>Wuchereria malayi</i> , Mar., Sept.-Dec.; 70. ---; experimentally infected with <i>W. malayi</i> ; 146. ---; naturally and experimentally infected with <i>W. malayi</i> ; 190 | Carter                 | 1950   |
|  | Aquatic plants, semi-aquatic grasses; ---; 143, 190  | Lee                    | 1944   |
|  | <i>Pistia</i> ponds with decaying coconut husk; enters houses at night; 143*   | Iyengar                | 1938   |
|  | ---; naturally and experimentally infected with <i>W. malayi</i>   | Iyengar                | 1938   |
|  | ---; delta regions; 144 (Possible vector of filariasis)  | Galliard               | 1936   |
|  | On <i>Pistia</i> plants; experimentally infected with <i>W. bancrofti</i> ; 144°, 145°. <i>Pistia</i> plants; ---; 190°, 277°  | Farner et al.          | 1946 + |
|  | On water hyacinth <i>Eichhornia crassipes</i> ; ---; 144   | Bonne-Wepster          | 1937   |
|  | ---; experimentally infected with <i>W. bancrofti</i> ; 144  | Galliard               | 1938   |
|  | ---; in houses, rare; 144°   | Galliard               | 1936 a |
|  | In association with water plants, <i>Ipomoea</i> ; ---; 145  | Wilcocks               | 1944 d |
|  | In small lakes with <i>Eichhornia</i> ; ---; 145   | Bonne-Wepster          | 1939   |
|  | On <i>Pistia</i> plants; ---; 146, 147, 149  | Farner                 | 1943   |
|  | ---; carrier of <i>W. malayi</i> ; 146   | Roy & Brown            | 1954   |
|  | ---; ---; 146*, 242 (Strongly anthropophilic)  | Bohart                 | 1945   |
|  | ---; enters houses; 277  | Barraud & Christophers | 1931   |
|  | ---; naturally and experimentally infected with <i>W. malayi</i> ; 277   | Raghavan               | 1961   |
|  | ---; light traps, April and Dec.; 277  | Causey                 | 1937   |
| <i>longipalpis</i><br>van der Wulp           | Ponds, attached to hyacinth plants; ---; 280   | Colless                | 1957 a |
|  | ---; ---; 59, 235  | Barraud                | 1927   |
|  | ---; ---; 143, 280   | Barraud                | 1934   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                    | DATE   |
|--|--|---------------------------|--------|
| <i>MANSONIA longipalpis</i><br>van der Wulp<br>(cont.) | With <i>Pistia</i> plants; ---; 144, 190, 242  | Farner et al.             | 1946 + |
|  | On aquatic plants; ---; 145°, 146°, 147°, 149°   | Farner                    | 1943   |
|  | ---; in houses; 145  | Kariadi                   | 1938   |
|  | ---; ---; 146  | Brug &<br>Edwards         | 1931   |
|  | ---; naturally and experimentally infected with<br><i>Wuchereria malayi</i> ; 149, 277   | Raghavan                  | 1961   |
|  | Attached to roots in several feet of water; swamp<br>forests, naturally and experimentally infected and<br>vector of <i>W. malayi</i> ; 190* | Wharton                   | 1957   |
|  | Swampy jungle; ---; 190  | Kingsbury                 | 1939   |
|  | ---; enters houses; 190*   | Wharton                   | 1952   |
|  | ---; carrier and vector of <i>W. malayi</i> ; 190*   | Hodgkin                   | 1939   |
|  | ---; ---; 242. ---; suspected vector of <i>W. malayi</i> ;<br>337  | Bohart                    | 1945   |
|  | ---; enters houses; 277  | Barraud &<br>Christophers | 1931   |
|  | ---; April; 277  | Causey                    | 1937   |
| <i>nikolskyi</i><br>Schingarev                         | ---; ---; 162, 256   | Martini                   | 1930   |
| <i>novochracea</i><br>(Barraud)                        | ---; in jungle; 143  | Barraud                   | 1927   |
|  | ---; ---; 149  | Bonne-Wepster             | 1930 a |
| <i>ochracea</i><br>(Theobald)                          | Weedy ponds; ---; 76°  | Bohart                    | 1946   |
|  | ---; ---; 76, 277  | Barraud                   | 1934   |
|  | ---; ---; 77, 144, 145   | Hsiao                     | 1945   |
|  | ---; Aug., Oct.; 143, 190, 242   | Barraud                   | 1927   |
|  | ---; ---; 146, 149   | Brug &<br>Edwards         | 1931   |
|  | Vegetated stagnant ponds; ---; 158   | La Casse &<br>Yamaguti    | 1950   |
|  | ---; ---; 280  | Edwards                   | 1928   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|---|---|--|--|
| <i>MANSONIA richiardii</i><br>(Ficalbi) | Reservoirs with vegetation; ---; 35, 118, 162, 256,<br>318, 321, 326, 342<br>---; ---; 150<br>---; ---; 302<br>---; bites man in open; 303°<br>---; ---; 317<br>---; most active May-June; 321<br>---; ---; 321°  | Shtakelberg<br>Gutzevich<br>Stone et al.<br>Blagovesh-<br>chenskii<br>et al.<br>Anonymous<br>Rybinsky<br>Reinhard &<br>Gutzevich | 1937<br>1943<br>1959<br>1943<br>1944<br>1933<br>1931 |
| <i>septempunctata</i><br>Theobald       | ---; ---; 144   | Cruickshank<br>& Wright  | 1914   |
| <i>uniformis</i><br>(Theobald)          | ---; bites day and night, in houses; 59°, 144°,<br>146°, 147°, 149°, 242°. ---; July-Sept., enters<br>houses, outdoors, in bushes and weeds, active at<br>night, during rainy season; 76. ---; ---; 77*.<br>---; experimentally infected with <i>Wuchereria</i><br><i>bancrofti</i> ; 158 | Farner et al.  | 1946 +   |
|   | Tanks, ponds, and marshes with dense aquatic<br>vegetation; ---; 70*  | Dassanayake<br>& Chow  | 1954   |
|   | Weedy pond; carry <i>W. bancrofti</i> , suitable vector<br>of <i>W. malayi</i> ; 76   | Bohart   | 1946   |
|   | Aquatic plants; ---; 76   | Chow   | 1949 c   |
|   | ---; bites man day and night, enters houses when<br>it rains, July-Aug.; 76°  | Feng   | 1933   |
|   | ---; experimentally infected and intermediate<br>host of <i>W. malayi</i> ; 76  | Feng   | 1935   |
|   | ---; possible vector of <i>W. malayi</i> ; 76, 277  | Raghavan   | 1961   |
|   | ---; bushes and weeds, active at night during<br>rainy season; 76   | Tseng &<br>Wu  | 1951   |
|   | ---; ---; 139 (Ponds with vegetation, pools and<br>marshes, anthropophilic, active during night, in<br>rainy season). ---; intermediate host of <i>W.</i><br><i>malayi</i> ; 337  | Heiao  | 1945   |
|   | In <i>Pistia</i> covered reservoirs; ---; 143   | Sundar Rao   | 1940   |
|   | ---; naturally and experimentally infected with <i>W.</i><br><i>malayi</i> ; 143  | Iyengar  | 1938   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR              | DATE   |
|--|--|---------------------|--------|
| <i>MANSONIA uniformis</i><br>(Theobald)<br>(cont.) | ---; carrier of <i>Wuchereria malayi</i> ; 143°, 146   | Roy & Brown         | 1954   |
|  | ---; enters houses; 143  | Iyengar             | 1933 a |
|  | Associated with <i>Ipomea</i> ; naturally infected with <i>W. malayi</i> ; 145   | Wilcocks            | 1944 d |
|  | Swampy areas; experimentally infected with <i>W. malayi</i> ; 145  | Kariadi             | 1941   |
|  | On <i>Eichhornia crassipes</i> ; in houses, anthropophilic, experimentally infected with microfilaria, carrier of <i>W. malayi</i> ; 145   | Kariadi             | 1938   |
|  | On <i>Pistia</i> and <i>Eichhornia</i> ; ---; 146, 147, 149  | Farner              | 1943   |
|  | ---; naturally infected with <i>W. malayi</i> ; 146  | Rodenwaldt          | 1934   |
|  | Swamps and pools overgrown with vegetation; ---; 147   | Knight et al.       | 1944 + |
|  | ---; enters houses and seldom bites man; 149°  | Brug & de Rock      | 1930   |
|  | ---; Mar.; 149   | Stanton             | 1915   |
|  | Swamps and pools with dense vegetation; --; 158°   | Hsiao & Bohart      | 1946   |
|  | Natural ponds and streams with vegetation; Aug.-Sept.; 158   | La Casse & Yamaguti | 1950   |
|  | ---; ---; 158, 277 (Vicious bloodsuckers)  | Bohart & Ingram     | 1946   |
|  | Ponds, slow moving streams with marginal vegetation; bites man at night, possible vector of filariasis and Japanese "B" encephalitis; 168°   | Barnett & Toshioka  | 1951   |
|  | On water hyacinth and other vegetation; ---; 190*  | Kingsbury           | 1938   |
|  | ---; enter houses; 190*  | Wharton             | 1952   |
|  | ---; carrier of <i>W. malayi</i> ; 190   | Hodgkin             | 1939   |
|  | ---; naturally infected with <i>W. malayi</i> ; 190  | Wharton             | 1957   |
|  | ---; host of <i>W. malayi</i> ; 190. Open swamps and pools with thick vegetation and attach to a variety of plants; bite outdoors in late afternoon and early evening; 242°. ---; ---; 257 | Delfinado           | 1966   |
|  | ---; all year; 190   | Kingsbury           | 1933   |
|  | ---; ---; 235  | Barraud             | 1927   |
|  | ---; April and Dec.; 277   | C.isey              | 1937   |

TABLE I - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE                                     |
|--|---|--|--|
| <i>MANSONIA uniformis</i><br>(Theobald)<br>(cont.) | ---; in houses, attracted to light; 277<br>Ponds, attached to hyacinth plants; ---; 280<br>Grassy swamp; ---; 280<br>---; possibly an important vector of <i>Wuchereria malayi</i> ; 337  | Barraud & Christophers<br>Colless<br>Edwards<br>Bohart         | 1931<br>1957 a<br>1928<br>1945           |
| <i>MANSONIOIDES uniformis</i><br>(Theobald)        | ---; naturally infected with <i>Wuchereria malayi</i> ; 76, 143, 145, 277<br><i>Pistia</i> ponds with decaying coconut husk; attracted to lights, enter houses at night; 143°<br>---; May, July-Nov.; 143<br>---; naturally infected with <i>W. bancrofti</i> ; 190 | Raghavan<br>Iyengar<br>Senior-White<br>Manson-Bahr             | 1961<br>1938<br>1934<br>1959             |
| <i>MEGARHINUS edwardsi</i><br>(Barraud)            | Tree holes; 7000 feet elevation, Aug.; 143  | Barraud  | 1924 f                                   |
| <i>gravelyi</i><br>(Edwards)                       | ---; ---; 31  | Edwards  | 1922 c                                   |
|  | Bamboo stumps; ---; 76  | Chow   | 1949 c                                   |
| <i>splendens</i><br>(Wiedemann)                    | Sandy lakes; rare; 76<br>Tree holes; ---; 76, 139<br>Tree holes, bamboo stumps; ---; 143. ---; ---; 235<br>---; all year; 143<br>---; common in swampy regions; 149   | Galliard & Ngu<br>Chow<br>Barraud<br>Senior-White<br>Dammerman | 1950<br>1949 c<br>1929 a<br>1934<br>1926 |
| <i>towadensis</i><br>Matsumura                     | ---; ---; 76<br>---; ---; 158, 242  | Faust<br>Martini   | 1926 a<br>1929                           |
| <i>MUCIDUS scataphagooides</i><br>Theobald         | River; ---; 70<br>Temporary rain pools; Oct.; 143<br>---; July; 143<br>---; Aug.-Sept.; 143   | Senior-White<br>Senior-White<br>Fletcher<br>Hodgson            | 1927<br>1928 a<br>1924<br>1914           |
| <i>MYZOMYIA ludlowii</i><br>(Theobald)             | Fresh water and brackish water; ---; 242<br>---; experimental transmission of malaria, infected with oocysts and sporozoites of <i>Plasmodium falciparum</i> ; 242°   | Ludlow<br>Dy & Gapuz   | 1914<br>1948                             |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                       | AUTHOR                                      | DATE   |
|---|---|---|--------|
| <i>MYCOMYIA</i>   |   |   |        |
| <i>rossi</i>  | ---; ---; 242   | Bezzi                                       | 1913   |
| <i>indefinitus</i><br>(Ludlow)  |   |   |        |
| <i>roessii</i>  | ---; ---; 242   | Bezzi                                       | 1913   |
| <i>mangyanus</i><br>(Banks)   |   |   |        |
| <i>sergentii</i><br>(Theobald)  | Seepages, irrigation canals; enters houses, naturally infected with malaria, Sept.-Oct.; 342* | Kligler                                     | 1930   |
| <i>superpictus</i><br>Grassi  | ---; June-Sept., naturally infected with malaria; 342   | Kligler                                     | 1930   |
| <i>thoractonii</i><br>Ludlow  | ---; ---; 242   | Bezzi                                       | 1913   |
| <i>MYZORHYNCHUS</i>   |   |   |        |
| <i>sinensis</i><br>Wiedemann  | ---; naturally infected with malaria; 76  | Stanley                                     | 1913   |
|   | ---; ---; 144   | Koun  | 1926   |
|   | ---; ---; 242   | Bezzi                                       | 1913   |
| <i>vanus</i><br>Wulp  | ---; ---; 242   | Bezzi                                       | 1913   |
| <i>NYSSOMYZOMYIA</i>  |   |   |        |
| <i>rossii</i><br>Giles  | Irrigation canals and trenches; ---; 144  | Cruickshank & Wright                        | 1914   |
| <i>NYSSORHYNCHUS</i>  |   |   |        |
| <i>annulipes</i><br>var. <i>moluccensis</i><br>Swellengrebel &<br>Swellengrebel<br>de Graaf | ---; ---; 147 (Artificial containers, brackish, fresh, running and stagnant water)            | Swellen-grebel &<br>Swellen-grebel de Graaf | 1920   |
| <i>flavus</i><br>Ludlow   | -- ; 242  | Bezzi                                       | 1913   |
| <i>nivipes</i><br>Theobald  | Marshy ground fed by a stream; ---; 190   | Lamborn                                     | 1922 a |
| <i>OCHLEROTATUS</i>   |   |   |        |
| <i>albotaeniatus</i><br>(Theobald)  | ---; ---; 70  | Senior-White                                | 1927   |
| <i>caspicus</i><br>(Pallas)   | Brackish water; June; 154   | Barraud                                     | 1921   |
|   | Footprints and other small collections of water;<br>---; 154                                  | Buxton                                      | 1922   |
|   | Brackish, fresh water, along marshes; bites in daylight, active evenings; 159°                | Buxton                                      | 1924 a |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                 | DATE   |
|---|--|------------------------|--------|
| <i>OCHLEROTATUS</i><br><i>detritus</i><br>(Haliday)               | Coastal brackish water; --; 154°. Brackish water; abundant and troublesome in wet season and spring; 159°<br>---; biting at dusk, Feb. and April; 154°. ---; Jan.; 159   | Barraud                | 1921   |
| <i>dorsalis</i><br>(Meigen)                                       | Desert pools collection of rain water; Dec.-Feb.; 151  | Barraud                | 1920   |
| <i>vigilax</i><br>(Skuse)   | Salty, sandy-bottomed swamps without vegetation; ---; 144  | Borel                  | 1930 a |
| <i>ORTHOPODOMYIA</i><br><i>albipes</i><br>Leicester               | ---; ---; 143, 145, 190, 242 (Bamboos)<br>Bamboo cavities; ---; 242  | Barraud                | 1934   |
| <i>anopheloides</i><br>(Giles)                                    | Tree trunk in forest; May, June, July, Aug., Sept.; 11, 143<br>---; ---; 59, 143, 144 (Bamboo stumps)<br>Tree holes, bamboo stumps; ---; 70<br>Tree holes, bamboo stumps; ---; 76<br>Bamboo stumps; ---; 77<br>Tree holes during monsoon; ---; 143<br>Hollow bamboo stalks; ---; 144<br>---; ---; 158, 190 (Tree holes, bamboo stumps, stone bowls and garden tanks). Tree holes; ---; 242 | Barraud                | 1927   |
| <i>anopheloides</i><br>var. <i>andamanensis</i><br>Barraud        | Buttress roots of trees; ---; 11, 143, 147<br>Buttress, root hole; ---; 280  | Hsiao                  | 1945   |
| <i>anopheloides</i><br><i>maculata</i><br>Theobald                | Tree holes, bamboos; ---; 70<br>---; ---; 70, 143, 146 (Foul water in stumps of giant bamboo and tree holes)   | Senior-White           | 1920 a |
| <i>anopheloides</i><br><i>nipponica</i><br>La Casse &<br>Yamaguti | Artificial containers, cut bamboo; ---; 158  | Bohart                 | 1946   |
| <i>fluvicosta</i><br>Barraud                                      | Tree holes; ---; 143   | Delfinado              | 1950   |
|   |  | Chow                   | 1950   |
|   |  | Barraud                | 1932   |
|   |  | Borel                  | 1930 a |
|   |  | Lee                    | 1944   |
|   |  | Brug                   | 1934 + |
|   |  | Wijesundara            | 1942   |
|   |  | Barraud                | 1934   |
|   |  | La Casse &<br>Yamaguti | 1950   |
|   |  | Barraud                | 1927   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|---|---|--|--|
| <i>ORTHOPODOMYIA</i><br><i>flavithorax</i><br>Barraud | ---; ---; 70 (Tree holes)<br>Tree holes; Sept.; 143   | Barraud  | 1934<br>1927   |
| <i>maculipes</i><br>Theobald                          | Bamboo stump; ---; 11, 145, 146, 149<br>---; ---; 11, 146, 190, 242 (Bamboo stumps, tree holes and a wooden bucket)<br>---; 750-1200 feet elevation; 277  | Brug<br>Delfinado<br>Barraud & Christophers  | 1931 a<br>1966<br>1931   |
| <i>madrensis</i><br>Baisas                            | Tree holes, coconut shells, bamboo stumps; ---; 280   | Colless  | 1957 a   |
| <i>meggregori</i><br>(Banks)                          | ---; ---; 11, 145, 146, 149, 190, 242, 277 (Tree holes, bamboo stumps, artificial containers and tree fern stumps)  | Delfinado  | 1966   |
| <i>pulchripalpis</i><br>(Rondani)                     | Reservoirs, tree holes; ---; 118, 321, 345 (Bites man)<br>---; ---; 317   | Shtakelberg<br>Anonymous   | 1937<br>1944   |
| <i>PARDOMYIA</i><br><i>aurantius</i><br>(Theobald)    | ---; common in swampy region; 149<br>Pot holes in mangrove; ---; 280  | Dammerman<br>Edwards & Given   | 1926<br>1928   |
| <i>SKUSEA</i><br><i>cancricomes</i><br>(Edwards)      | Swamps, marshes; March; 144   | Borel  | 1926   |
| <i>STEGOMYIA</i><br><i>albopictus</i><br>(Skuse)      | ---; ---; 59, 70, 235<br>---; April-October; 118<br>Artificial containers, tree holes, bamboo stumps, water butts; ---; 143<br>---; June-Sept.; 143<br>Artificial containers, tree holes; in houses, suspected vector of dengue, common in bushes, on walls, April and Sept.; 144<br>Near houses; ---; 144<br>---; common in swampy areas; 149<br>Artificial containers; ---; 158<br>Pools, swamps, pitcher plants, travellers palms, artificial containers; ---; 190 | Barraud<br>Roukhadze<br>Barraud<br>Senior-White<br>Toumanoff<br>Borel<br>Dammerman<br>Lamborn<br>Milne | 1923 d<br>1926 b<br>1923 b<br>1934<br>1935<br>1930 a<br>1926<br>1922<br>1933 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                   | DATE   |
|--|---|--------------------------|--------|
| <i>STEGOMYIA</i><br><i>argenteus</i><br>Poiret       | ---; ---; 11, 59  | Barraud                  | 1923 d |
|  | Artificial containers; near houses; 143   | Barraud                  | 1923 b |
|  | Artificial containers; near houses; 144*  | Borel                    | 1930 a |
|  | ---; along coast; 154, 159  | Buxton                   | 194 a  |
|  | ---; ---; 342   | Bodenheimer              | 1937   |
| <i>argentea</i><br>var. <i>luciensis</i><br>Theobald | ---; ---; 59, 70  | Barraud                  | 1923 d |
| <i>fasciatus</i><br>Fabricius                        | Shallow brackish wells; all year; ?   | Smith &<br>Loughnan      | 1914   |
|  | ---; ---; 11, 59. Tree holes, hollow bamboos,<br>pool of rain water, wells, artificial containers;<br>---; 143**. ---; ---; 144, 235, 302. ---;<br>experimental transmission of dengue; 242 (Day<br>biting, common) | Barraud                  | 1928 b |
|  | ---; ---; 31°   | Christophers             | 1921   |
|  | ---; common near and in houses, June, Oct., carrier<br>of yellow fever; 70  | James                    | 1914   |
|  | ---; ---; 76  | Riley                    | 1932 a |
|  | ---; April-October; 118   | Roukhadze                | 1926 b |
|  | Artificial container; near houses; 139  | Anonymous                | 1915   |
|  | Artificial containers, cisterns, cement siphon tube<br>of the smaller branches of the canal; Sept.; 143   | Hodgson                  | 1914   |
|  | ---; in houses, Mar.-Apr., July-Nov.; 143   | Senior-White             | 1934   |
|  | Artificial containers, tree holes; in houses,<br>suspected vector of dengue, in bushes, on walls,<br>August; 144°   | Toumanoff                | 1935   |
|  | ---; Feb.; 149  | Stanton                  | 1915   |
|  | ---; river bank, Nov.; 150. ---; rare; 151  | Barraud                  | 1920   |
|  | Wells; ---; 151   | Christophers<br>& Shortt | 1921   |
|  | Artificial containers; ---; 154°, 302, 342°. ---;<br>artificial containers, most troublesome in hot<br>season; 174°   | Barraud                  | 1921   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|--|---|--|--|
| <i>STEGOMYIA fasciatus</i><br>Fabricius<br>(cont.)   | ---; experimental transmission of dengue; 174<br><br>Cisterns, fresh or slightly brackish water; bites<br>indoors at night; 302°<br><br>---; ---; 317*  | Siler et al.<br>Adrien<br>Stefko   | 1926<br>1918<br>1917   |
| <i>fasciata</i><br>var. <i>luciensis</i><br>Theobald | ---; ---; 70  | James  | 1914   |
| <i>fasciata</i><br><i>persistans</i><br>Banks        | ---; ---; 242   | Bezzi  | 1913   |
| <i>flavopictus</i><br>Yamada                         | Tree holes; at high altitudes; 235  | Barraud  | 1923 a   |
| <i>mediopunctatus</i><br>(Theobald)                  | Hollow bamboo stalks in forests; ---; 144   | Borel  | 1930 a   |
| <i>scutellaris</i><br>(Walker)                       | Artificial containers; all year, enters houses at<br>sundown; 70°<br><br>---; ---; 70<br><br>---; naturally infected with yellow fever; 76<br><br>---; possible vector of dengue; 77<br><br>---; April-October; 118<br><br>Artificial containers with clean or dirty water;<br>in houses and outdoors; 139<br><br>Artificial containers, cisterns, cement syphon tubes<br>of smaller branches of the canal; common, Sept.; 143<br><br>Tree holes and bamboo traps; ---; 143 | Senior-White<br>Carter<br>Stanley<br>Siler et al.<br>Roukhadze<br>Anonymous<br>Hodgson<br>Fletcher<br>Fletcher<br>Cruickshank<br>& Wright<br>Stanton<br>Banks<br>Edwards<br>Senior-White | 1920 a<br>1950 a<br>1913<br>1926<br>1926 b<br>1915<br>1914<br>1917<br>1916<br>1914<br>1915<br>1919<br>1912<br>1920 a |
| <i>sugens</i><br>Wiedemann                           | ---; ---; 2, 143<br><br>Rocky pools in ravine; ---; 70  |  |  |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR                                       | DATE                           |
|---|---|--|--------------------------------|
| <i>STEGOMYIA vittatus</i><br>(Bigot)      | ---; ---; 70, 235<br>Artificial containers, rock pools; ---; 143<br>Tree holes, rock pools; ---; 144  | Barraud<br>Barraud<br>Borel                  | 1923 d<br>1923 b<br>1930 a     |
| <i>w-albus</i><br>(Theobald)              | ---; ---; 11, 70<br>Hill side; ---; 139<br>Common in tree holes; ---; 143<br>Bamboo traps; ---; 143   | Barraud<br>Anonymous<br>Fletcher<br>Fletcher | 1923 d<br>1915<br>1921<br>1917 |
| <i>TAENIORHYNCHUS argenteus</i><br>Ludlow | ---; ---; 242   | Bezzi  | 1913                           |
| <i>brevicellulus</i><br>Theobald          | ---; ---; 70<br>---; ---; 143<br>---; March; 149  | Senior-White<br>Senior-White<br>Stanton      | 1927<br>1922<br>1915           |
| <i>conopas</i><br>(Frauenfeld)            | ---; March; 149   | Stanton                                      | 1915                           |
| <i>lineatopennis</i><br>(Ludlow)          | ---; ---; 242   | Bezzi  | 1913                           |
| <i>metallica</i><br>(Theobald)            | ---; ---; 242   | Bedford                                      | 1928                           |
| <i>nigrosignatus</i><br>Edwards           | ---; ---; 77  | Stone et al.                                 | 1959                           |
| <i>pagei</i><br>Ludlow                    | ---; ---; 242   | Bezzi  | 1913                           |
| <i>tenax</i><br>Theobald                  | ---; ---; 143   | Fletcher                                     | 1916                           |
| <i>uniformis</i><br>(Theobald)            | Marshy areas; July-October, Feb.; 70. ---; ---; 76, 149, 158. ---; naturally infected with <i>Wuchereria malayi</i> ; 143. ---; experimentally infected with <i>W. malayi</i> ; 146. ---; naturally and experimentally infected with <i>W. malayi</i> ; 190<br>---; cattle and human-bait traps, April-Nov., naturally infected with <i>W. malayi</i> and <i>W. bancrofti</i> ; 70<br>---; ---; 77, 145 | Carter<br>Carter<br>Edwards                  | 1950<br>1948<br>1941           |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR   | DATE   |
|--|---|--|--|
| <i>TAENIORHYNCHUS uniformis</i><br>(Theobald)<br>(cont.) | ---; ---; 144, 235<br>---; ---; 242<br>Grassy swamp; ---; 280   | Barraud<br>Edwards<br>Edwards & Given  | 1927<br>1929<br>1928   |
| <i>THEOBALDIA congiarfolata</i><br>Macquart              | ---; ---; 342   | Kirkpatrick  | 1925 +   |
| <i>indica</i><br>(Edwards)                               | ---; Feb.-March, May, October; 143<br>---; ---; 303   | Barraud  | 1924 d   |
| <i>longiareolata</i><br>(Macquart)                       | Reservoirs; ---; 28, 31, 35, 118, 256, 321 (Eltes man)<br>---; April-June; 143. ---; June; 235<br>---; ---; 143, 150 (Pools and ponds)<br>Artificial reservoirs, bogs and swamps, artificial containers; ---; 150<br>Under fallen leaves near dam; ---; 150<br>---; bite man; 150°<br>Deep pools; ---; 151<br>Rain pools in rocky beds; May; 154. Cisterns, water butts, clear water, ditches, caves, brackish rummel; all year; 342<br>Artificial containers, wells; ---; 174, 342<br>Rock pools, marsh pools, pits, large swamps; Mar.-May, Sept., Oct.; 174, 302<br>Semi-permanent water, or transitory rain or flood-water pools with little vegetation; ---; 270<br>---; ---; 303<br>---; ---; 317<br>Saline wells; ---; 318<br>Polluted pond water; ---; 326<br>---; ---; 354 | Shtakelberg<br>Barraud<br>Barraud<br>Gutzevich<br>Beklemishev & Gontaeva<br>Gutzevich<br>Barraud<br>Buxton<br>Barraud<br>Parr<br>Edwards<br>Keshish'yan<br>Martini<br>Petrishcheva<br>Kazantzev<br>Edwards | 1937<br>1924 d<br>1934<br>1948 +<br>1943 +<br>1943<br>1920<br>1924 a<br>1921<br>1943 +<br>1941<br>1941<br>1930<br>1936<br>1932<br>1921 b |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)       | AUTHOR                | DATE   |
|--|---|-----------------------|--------|
| <i>THEOBALDIA</i><br><i>longiareolata</i><br><i>spatipalpis</i><br>Rondani | Muddy puddles; enters houses; 256   | Martini               | 1928 + |
| <i>spatipalpis</i><br>Rondani  | Wells; ---; 151   | Christophers & Shortt | 1921   |
|  | ---; ---; 317   | Irfan & Vogel         | 1927 + |
| <i>TOPOMYIA</i><br><i>argenteoventralis</i><br>Leicester                   | ---; ---; 143   | Barraud               | 1929 a |
|  | ---; ---; 145   | Edwards               | 1932 + |
|  | Leaf axils of <i>Colocasia</i> near waterfall; ---; 149, 190                  | Brug                  | 1931 c |
| <i>argyropalpis</i><br>Leicester   | ---; ---; 146   | Edwards               | 1928   |
|  | ---; ---; 190. Leaf axils containing water, bamboo, certain flowers; ---; 242 | Bohart                | 1945   |
| <i>aureoventer</i><br>(Theobald)   | ---; ---; 143, 190  | Barraud               | 1934   |
| <i>auriceps</i><br>Brug  | <i>Colocasia</i> leaf axils; ---; 145   | Brug                  | 1939   |
| <i>barbus</i><br>Baisas  | ---; ---; 242   | Bick                  | 1949   |
| <i>decorabilis</i><br>Leicester  | ---; ---; 145, 190  | Edwards               | 1922 c |
| <i>dejesusi</i><br>Baisas & Feliciano                                      | ---; ---; 242   | Stone et al.          | 1959   |
| <i>dubitans</i><br>Leicester   | <i>Colocasia</i> leaf axils; ---; 145   | Brug                  | 1939   |
|  | ---; ---; 190   | Edwards               | 1928   |
| <i>gracilis</i><br>Leicester   | Plant stalks; ---; 144  | Borel                 | 1930 a |
|  | Leaf axils; ---; 146, 149, 190  | Brug                  | 1931 a |
| <i>hernandoi</i><br>Baisas & Feliciano                                     | ---; ---; 242   | Stone et al.          | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                          | AUTHOR                             | DATE           |
|--|--|------------------------------------|----------------|
| <i>TOPOMYIA houghtoni</i><br>Feng              | Leaf bases of <i>Colocasia</i> ; July-Oct.; 76<br>Leaf axils of <i>Aroid</i> ; ---; 76           | Chow                               | 1949 c         |
| <i>imitatus</i><br>Baisas                      | ---; ---; 242  | Stone et al.                       | 1959           |
| <i>minor</i><br>Leicester                      | ---; ---; 190  | Edwards                            | 1928           |
| <i>nigra</i><br>Leicester                      | <i>Pandanus</i> leaf axils; ---; 146, 190  | Brug                               | 1931 a         |
| <i>pilosa</i><br>Brug                          | Leaf axils; ---; 149   | Brug                               | 1931 a         |
| <i>pseudobarbus</i><br>Baisas                  | ---; ---; 242  | Stone et al.                       | 1959           |
| <i>rubithoracis</i><br>Leicester               | ---; ---; 149, 190   | Brug &<br>Edwards                  | 1931           |
| <i>spathulirostris</i><br>Edwards              | Bamboo; at 3500 feet elevation; 190  | Edwards                            | 1923           |
| <i>tenuis</i><br>Edwards                       | ---; near stream in jungle; 190  | Edwards                            | 1922 b         |
| <i>tipuliformis</i><br>Leicester               | <i>Colocasia indica</i> , leaf axils of <i>Pesang</i> ; ---; 146, 190<br>---; ---; 149           | Brug<br>Brug &<br>Edwards          | 1931 a<br>1931 |
|  | Edges of jungle stream; ---; 190   | Edwards                            | 1922 c         |
| <i>trifida</i><br>Edwards                      | ---; ---; 145  | Edwards                            | 1922 b         |
| <i>TOXORHYNCHITES acaudatus</i><br>(Leicester) | ---; ---; 145, 190<br>Pitcher plants; ---; 280   | Stone et al.<br>Edwards &<br>Given | 1959<br>1928   |
| <i>albipes</i><br>(Edwards)                    | Tree holes; ---; 143   | Edwards                            | 1922 c         |
|  | Tree holes, hollow bamboo stalks; ---; 144   | Borel                              | 1930 a         |
| <i>amboinensis</i><br>(Doleschall)             | ---; ---; 146, 147, 277<br>Polluted water, exposed or shaded, artificial<br>containers; ---; 242 | Stone et al.<br>Bick               | 1959<br>1949   |
|  | ---; common; 242   | Bohart                             | 1945           |
| <i>ater</i><br>(Daniels)                       | Pitcher plant; ---; 190  | Edwards                            | 1923 +         |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS) | AUTHOR            | DATE     |
|---|---|-------------------|----------|
| <i>TOXORHYNCHITES aurifluus</i><br>(Edwards)        | Bamboo stumps, tree holes, artificial containers;<br>---; 77            | Lien              | 1965     |
|   | ---; ---; 146, 149  | Stone et al.      | 1959     |
|   | ---; ---; 158   | Ogasawara         | 1939     |
|   | ---; ---; 190   | Brug &<br>Edwards | 1931     |
| <i>aurifluus</i><br><i>formosensis</i><br>Ogasawara | ---; ---; 77  | Ogasawara         | 1939 a + |
| <i>curipes</i><br>(Edwards)                         | ---; ---; 145   | Stone et al.      | 1959     |
| <i>christophi</i><br>(Portschinsky)                 | Tree holes, reservoirs; ---; 256  | Shtakelberg       | 1937     |
| <i>coeruleus</i><br>(Brug)                          | ---; ---; 149   | Stone et al.      | 1959     |
| <i>edwardsi</i><br>(Barraud)                        | Tree holes; ---; 143  | Barraud           | 1924 f   |
| <i>funestus</i><br>(Leicester)                      | ---; ---; 190   | Stone et al.      | 1959     |
| <i>gigantulus</i><br>(Dyar &<br>Shannon)            | ---; Nov.; 242  | Dyar &<br>Shannon | 1925     |
| <i>gilesii</i><br>Theobald                          | ---; ---; 76  | Faust             | 1926 a   |
| <i>gravelyi</i><br>(Edwards)                        | Tree holes, bamboo; ---; 143<br>---; ---; 277                           | Barraud           | 1934     |
| <i>immisericors</i><br>(Walker)                     | Bamboo stump; Dec., Feb., March, May; 70                                | Senior-White      | 1920 a   |
| <i>inornatus</i><br>(Walker)                        | Tree holes, artificial containers, wells; ---; 147                      | Lee               | 1944     |
| <i>inornatus</i><br><i>albitarsis</i><br>(Brug)     | Leaf axils of <i>Colocasia</i> ; ---; 145                               | Brug              | 1939     |
| <i>kempi</i><br>(Edwards)                           | Bamboos; ---; 76, 143, 146  | Bohart            | 1946     |
|   | Tree holes, bamboo stalks; ---; 144                                     | Borel             | 1930 a   |
|   | Artificial container; ---; 146  | Brug              | 1932 +   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS) | AUTHOR            | DATE   |
|---|---|-------------------|--------|
| <i>TOXORHYNCHITES</i>                   |   |                   |        |
| <i>klossi</i><br>(Edwards)              | ---; ---; 143, 190  | Stone et al.      | 1959   |
| <i>leicesteri</i><br>Theobald           | 6000 feet elevation or more among oaks and pines;<br>---; 143           | Christophers      | 1921   |
|   | ---; ---; 190, 277, 280   | Stone et al.      | 1959   |
| <i>magnificus</i><br>(Leicester)        | ---; ---; 145, 190, 277, 280  | Stone et al.      | 1959   |
| <i>manicatus</i><br>(Edwards)           | Bamboo stumps, tree holes, artificial containers;<br>---; 77            | Lien              | 1965   |
|   | ---; ---; 158   | Ogasawara         | 1939   |
| <i>metallicus</i><br>Leicester          | ---; ---; 143, 337  | Stone et al.      | 1959   |
|   | ---; ---; 146   | Brug &<br>Edwards | 1931   |
|   | Bamboo stumps; ---; 149   | Brug              | 1931 a |
|   | Bamboos, tree holes, pitcher plants; ---; 190                           | Edwards           | 1923   |
|   | ---; ---; 242   | Dyar              | 1920   |
| <i>minimus</i><br>(Theobald)            | Tree holes and bamboos; ---; 70. Bamboos; ---;<br>143, 149              | Barraud           | 1934   |
|   | ---; April-March; 70  | Senior-White      | 1919   |
|   | ---; ---; 146, 190  | Brug &<br>Edwards | 1931   |
| <i>nepenthis</i><br>(Dyar &<br>Shannon) | ---; Feb.; 242  | Dyar &<br>Shannon | 1925   |
| <i>nigripes</i><br>(Edwards)            | ---; ---; 145   | Stone et al.      | 1959   |
| <i>pendleburyi</i><br>(Edwards)         | ---; ---; 145   | Stone et al.      | 1959   |
| <i>quasiferox</i><br>(Leicester)        | Bamboo stump; ---; 143, 145, 146, 149, 190<br>---; ---; 280             | Brug              | 1931 a |
| <i>raris</i><br>(Leicester)             | ---; ---; 190   | Stone et al.      | 1959   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR       | DATE   |
|--|--|--------------|--------|
| <i>TOXORHYNCHITES</i><br><i>speciosus</i><br>(Skuse) | Artificial containers, tree holes, coconut shells, bamboo stumps; ---; 280   | Colless      | 1957 a |
| <i>splendens</i><br>(Wiedemann)                      | Leaf axils of <i>Colocasia</i> ; ---; 11, 70, 146, 147, 149, 277   | Brug         | 1931 a |
|  | ---; ---; 11, 59, 139, 144 (Artificial containers near houses)   | Barraud      | 1934   |
|  | Tree holes and bamboo stumps; ---; 70  | Wijesundara  | 1942   |
|  | Artificial containers; ---; 70   | Senior-White | 1927   |
|  | Tree holes, bamboos, artificial containers, predaceous; ---; 76  | Bohart       | 1946   |
|  | ---; ---; 139, 277 (Bamboos). ---; ---; 144 (Tree holes and bamboos). ---; ---; 190 (Tree holes, bamboos, artificial containers) | Hsiao        | 1945   |
|  | Artificial containers, water butts; ---; 143   | Lee          | 1944   |
|  | Tree holes, bamboo stumps, artificial containers; ---; 146   | Paine        | 1934   |
|  | ---; on tree trunks during daytime, Sept.; 190   | Lien         | 1965   |
|  | Tree holes, bamboos, artificial containers, leaf axils of <i>Colocasia</i> ; ---; 242  | Bohart       | 1946   |
|  | Artificial containers with water and tree holes; ---; 277  | Causey       | 1937   |
|  | Pitcher plants; ---; 280   | Edwards      | 1923 + |
| <i>splendens</i><br><i>subulifer</i><br>(Doleschall) | ---; ---; 145, 147   | Stone et al. | 1959   |
| <i>sumatranaus</i><br>(Brug)                         | Pitcher plant; ---; 149  | Brug         | 1939   |
| <i>yaeyamae</i><br>Bohart                            | ---; ---; 257  | Stone et al. | 1959   |
| <i>yamadai</i><br>(Ouchi)                            | ---; ---; 158  | Stone et al. | 1959   |
| <i>TRICHOCEERA</i><br><i>siberica</i><br>Edwards     | ---; ---; 256  | Edwards      | 1920   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR               | DATE   |
|--|---|----------------------|--------|
| <i>TRIPTEROIDES</i><br><i>asexus</i><br>(Edwards)      | Edges of streams; ---; 1, 7<br>---; ---; 277  | Edwards              | 1921   |
| <i>affinis</i><br>(Edwards)                            | ---; ---; 70. Tree holes; ---; 143<br>---; ---; 277   | Barraud              | 1929   |
| <i>antennalis</i><br>Bohart &<br>Farner                | ---; at 7000-8000 feet elevation; 242   | Bohart               | 1945   |
| <i>apoensis</i><br>Baisas &<br>Ubaldo-<br>Pagayon      | Pitcher plants; ---; 242  | Baisas &<br>Pagayon  | 1952   |
| <i>aranoides</i><br>(Theobald)                         | Bamboos; ---; 11, 59<br>---; ---; 11, 59, 143, 146 (Occasionally tree<br>holes). ---; ---; 144, 145 (Bamboos and tree holes).<br>Common in pitcher plants and bamboos; ---; 190<br>Bamboo stump and pitcher plants; ---; 70, 143, 146,<br>149 | Barraud              | 1929   |
|  | Tree holes; ---; 70   | Brug                 | 1931 a |
|  | Bamboo stumps; ---; 76  | Wijesundara          | 1942   |
|  | Bamboo stumps; ---; 77  | Chow                 | 1949 c |
|  | ---; ---; 133   | Chow                 | 1950   |
|  | Hollow bamboo stalks; ---; 144  | Stone et al.         | 1959   |
|  | Pools, swamps; ---; 190   | Borel                | 1930 a |
|  | Pitcher plants; ---; 277  | Milne                | 1933   |
|  | Pitcher plants; ---; 280  | Causey               | 1937   |
|  | ---; ---; 349   | Colless              | 1957 a |
|  |   | de Mello &<br>Afonso | 1921   |
| <i>aranoides</i><br>var. <i>serratus</i><br>(Barraud)  | ---; ---; 143   | Stone et al.         | 1959   |
| <i>atrides</i><br><i>occidentalis</i><br>Brug          | ---; ---; 146   | Bezzi                | 1913   |
| <i>atrides</i><br><i>punctolateralis</i><br>(Theobald) | ---; ---; 242   |                      |        |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR              | DATE     |
|---|---|---------------------|----------|
| <i>TRIPTEROIDES bambusa</i><br>(Yamada)         | Bamboo stumps; ---; 76  | Chang               | 1939     |
|   | Jungle; ---; 76   | Li & Wu             | 1935 b + |
|   | ---; ---; 76 (Tree holes, artificial containers).<br>---; ---; 135 (Bamboo trunks, tree holes, artificial containers) | Hsiao               | 1945     |
|   | Bamboo stumps, artificial water containers; ---; 77   | Chow                | 1950     |
|   | tree holes, occasionally in artificial containers;<br>---; 158'   | Hsiao & Bohart      | 1946     |
|   | Shaded bamboo stumps with organic matter, dried leaves in bamboo groves; all year; 158                                | La Casse & Yamaguti | 1950     |
|   | Tree holes; ---; 158  | Sara & Tshimura     | 1951     |
|   | ---; ---; 257   | Stone et al.        | 1959     |
| <i>barraudi</i><br>Baisas & Ubaldo-Pagayon      | Ground and arboreal pitcher plants; ---; 242  | Baisas & Pagayon    | 1952     |
| <i>belkini</i><br>Baisas & Ubaldo-Pagayon       | Arboreal pitcher plants; ---; 242   | Baisas & Pagayon    | 1952     |
| <i>bimaculipes</i><br>(Theobald)                | ---; ---; 77  | Secrette            | 1916     |
|   | Coconut husks, tree holes, bamboo stumps and pitcher plants; ---; 147   | Lee                 | 1944     |
| <i>brevipalpis</i><br>Brug                      | Bamboo stumps; ---; 147   | Lee                 | 1944     |
| <i>caeruleocephalus</i><br>(Leicester)          | ---; ---; 146, 190  | Stone et al.        | 1959     |
|   | ---; June; 149  | Stanton             | 1915     |
| <i>christophersi</i><br>Baisas & Ubaldo-Pagayon | Ground pitcher plants; ---; 242   | Baisas & Pagayon    | 1952     |
| <i>claggi</i><br>Bohart & Farner                | ---; 7000-8000 feet elevation; 242  | Bohart              | 1945     |
| <i>delpilari</i><br>Baisas & Ubaldo-Pagayon     | Ground and arboreal pitcher plants; ---; 242  | Baisas & Pagayon    | 1952     |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS) | AUTHOR              | DATE |
|--|---|---------------------|------|
| <i>TRIPTEROIDES</i>                                  |   |                     |      |
| <i>dofleini</i><br>(Gunther)                         | In pitcher plant, <i>Nepenthes distillatoria</i> ; ---; 70              | Guenther            | 1913 |
| <i>dyari</i><br>Bohart &<br>Farnek                   | Pitcher plants; ---; 242  | Baisas &<br>Pagayon | 1952 |
| <i>dyi</i><br>Baisas &<br>Ubaldo-<br>Pagayon         | ---; ---; 242   | Baisas &<br>Pagayon | 1952 |
| <i>edwardsi</i><br>(Barraud)                         | Bamboo; ---; 143  | Barraud             | 1934 |
| <i>erlinda</i><br>Baisas &<br>Ubaldo-<br>Pagayon     | ---; ---; 242   | Stone et al.        | 1959 |
| <i>hoogstraali</i><br>Baisas                         | ---; active by day in dense woods; 242°                                 | Baisas &<br>Pagayon | 1952 |
| <i>hybridus</i><br>(Leicester)                       | ---; ---; 190, 277  | Stone et al.        | 1959 |
| <i>indeterminatus</i><br>Baisas & Ubaldo-<br>Pagayon | ---; ---; 24?   | Stone et al.        | 1959 |
| <i>intermediatus</i><br>Baisas & Ubaldo-<br>Pagayon  | Pitcher plants; ---; 242  | Baisas &<br>Pagayon | 1952 |
| <i>knighti</i><br>Baisas & Ubaldo-<br>Pagayon        | ---; ---; 242   | Baisas &<br>Pagayon | 1952 |
| <i>mabinii</i><br>Baisas & Ubaldo-<br>Pagayon        | Cut bamboos; ---; 242   | Baisas &<br>Pagayon | 1952 |
| <i>malvari</i><br>Baisas & Ubaldo-<br>Pagayon        | Pitcher plants; ---; 242  | Baisas &<br>Pagayon | 1952 |
| <i>mendacis</i><br>(Daniels)                         | Pitcher plants; ---; 190  | Edwards             | 1923 |
| <i>microcala</i><br>(Dyar)                           | Ground and arboreal pitcher plants; ---; 242                            | Baisas &<br>Pagayon |      |
| <i>monetifer</i><br>(Dyar)                           | Cut bamboos; enters houses, late afternoon, readily<br>bites man; 242°  | Baisas &<br>Pagayon | 1952 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR           | DATE   |
|---|--|------------------|--------|
| <i>TRIPTEROIDES nepenthicola</i><br>(Banks)                         | Ground and arboreal pitcher plants; ---; 242   | Baisas & Pagayon | 1952   |
| <i>nepenthis</i><br>(Edwards)                                       | Pitcher plant; ---; 145  | Edwards          | 1915   |
|   | Pools, swamps, pitcher plants; ---; 190, 280   | Milne            | 1933   |
| <i>nitidoventer</i><br>(Giles)                                      | Bamboo stumps, dead bamboo; ---; 145   | Brug             | 1939   |
|   | Cut bamboos; enters houses late afternoon; 242*  | Baisas & Pagayon | 1952   |
|   | Dead bamboo; ---; 242  | Bohart           | 1945   |
| <i>plumosus</i><br>(Brug)   | Bamboo stumps; ---; 146, 149   | Brug             | 1931 a |
| <i>PC. 77</i><br>(X 'low)   | ---; ---; 133  | Stone et al.     | 1959   |
|   | Bamboo stumps and tree holes; ---; 146   | Brug             | 1939   |
|   | Tree holes, cut bamboos, banana axils, artificial containers, husks, shells, fallen leaves of coconut; ---; 242            | Baisas & Pagayon | 1952   |
| <i>powelli</i><br><i>escodae</i><br>Baisas & Ubaldo-<br>Pagayon     | Tree holes, cut bamboos, artificial containers, coconut husks, shells, axils of <i>Colocasia</i> and palm stumps; ---; 242 | Baisas & Pagayon | 1952   |
| <i>powelli</i><br><i>indicus</i><br>(Barraud)                       | ---; ---; 59, 143 (Bamboos). Bamboos; ---; 242   | Barraud          | 1934   |
|   | Bamboo stumps; ---; 145  | Brug             | 1939   |
| <i>powelli</i><br><i>laffooni</i><br>Baisas &<br>Ubaldo-<br>Pagayon | Tree holes, cut bamboo, axils of bananas and <i>Pandanus</i> , palm stumps; ---; 242                                       | Baisas & Pagayon | 1952   |
| <i>powelli</i><br><i>mattinglyi</i><br>Baisas & Ubaldo-<br>Pagayon  | Cut bamboo; ---; 242   | Baisas & Pagayon | 1952   |
| <i>proximus</i><br>(Edwards)  | Hollow bamboo stalks; ---; 144   | Borel            | 1930 a |
|   | Pitcher plants; ---; 145   | Edwards          | 1915   |
|   | Tree hole, bamboo stumps; ---; 146   | Brug             | 1939   |
|   | Tree holes, bamboo stumps; ---; 149  | Brug             | 1932 + |
|   | ---; ---; 190  | Brug & Edwards   | 1931   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR                             | DATE                 |
|---|--|------------------------------------|----------------------|
| <b>TRIPPEROIDES</b>                                     |  |                                    |                      |
| <i>rozaesi</i><br>Baisas & Ubaldo-<br>Pagayon           | Ground pitcher plants; ---; 242  | Baisas &<br>Pagayon                | 1952                 |
| <i>rozeboomii</i><br>Baisas & Ubaldo-<br>Pagayon        | ---; ---; 242  | Baisas &<br>Pagayon                | 1952                 |
| <i>similis</i><br>(Leicester)                           | ---; ---; 133, 146, 149, 277<br>---; ---; 143, 190 (Bamboos)<br>---; mountains 3500 feet elevation; 190  | Stone et al.<br>Barraud<br>Edwards | 1959<br>1934<br>1928 |
| <i>simulatus</i><br>Baisas & Ubaldo-<br>Pagayon         | Pitcher plants; ---; 242   | Baisas &<br>Pagayon                | 1952                 |
| <i>sullivanae</i><br>Baisas & Ubaldo-<br>Pagayon        | Shells of small forest snails, tree holes; ---; 242  | Baisas &<br>Pagayon                | 1952                 |
| <i>toffaletii</i><br>Baisas & Ubaldo-<br>Pagayon        | Cut bamboos; ---; 242  | Baisas &<br>Pagayon                | 1952                 |
| <i>uichancoi</i><br>Baisas & Ubaldo-<br>Pagayon         | ---; ---; 242  | Baisas &<br>Pagayon                | 1952                 |
| <i>vicinus</i><br>(Edwards)                             | Tree holes, bamboo; ---; 76, 190<br>---; ---; 139 (Tree holes, bites man). ---; ---; 190<br>(Bites man)  | Bohart<br>Hsiao                    | 1946<br>1945         |
|   | Pitcher plants; ---; 145, 149, 190   | Brug                               | 1931 a               |
|   | Pitcher plants; ---; 280   | Edwards                            | 1928                 |
| <i>verneri</i><br>Baisas & Ubaldo-<br>Pagayon           | Arboreal pitcher plants; ---; 242  | Baisas &<br>Pagayon                | 1952                 |
| <i>URANOTAEVIA</i><br><i>alboannulata</i><br>(Theobald) | ---; ---; 143  | Barraud                            | 1934                 |
| <i>annandalei</i><br>Barraud                            | ---; ---; 59, 143, 257 (Forest streams, shaded<br>residual pools in rocky jungle creeks, old scummy<br>pools on forest floor and jungle swamps). ---;<br>---; 242 (Shaded pools in rocky jungle creeks and<br>jungle swamps) | Delfinado                          | 1966                 |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|---|---|---|--|
| <i>URANOTAENIA annandalei</i><br>Barraud<br>(cont.) | ---; ---; 59, 139, 143, 277 (Stream beds with sandy bottoms in hilly country)<br><br>Shady pools, partly dried stream bed; ---; 76<br><br>Sandy stream bed pools; ---; 76<br><br>Ground pools; ---; 77<br><br>---; in jungle; 143<br><br>Forest streams; at 5000 feet elevation; 242<br><br>Back water of valley stream; ---; 277   | Hsiao<br><br>Hu<br><br>Bohart<br><br>Chow<br><br>Barraud<br><br>Baisas<br><br>Causey                                    | 1945<br><br>1937<br><br>1946<br><br>1950<br><br>1934<br><br>1935<br><br>1937   |
| <i>arguellesi</i><br>Baisas                         | Grassy ponds, semi-stagnant brooks, semi-open forested marshes with many leaves in water, clear and shaded jungle creeks and impounded clear vegetated water; ---; 242  | Delfinado   | 1966   |
| <i>argyrotarsis</i><br>Leicester                    | ---; ---; 147, 190 (Forest streams, tree holes, shaded temporary ground pools and leafy forest swamps). ---; ---; 242 (Tree holes, shaded temporary ground pools and leafy forest swamps)<br><br>Tree holes, temporary ground pools; ---; 190, 242<br><br>Forest streams; ---; 242  | Delfinado<br><br>Knight et al.<br><br>Baisas  | 1966<br>1944 +<br>1935   |
| <i>ascidiicola</i><br>de Meijere                    | Leaf cups of <i>Nepenthes gymnamphora</i> ; ---; 146  | Brug  | 1931 a   |
| <i>atra</i><br>Theobald                             | ---; crab holes; 11 (Stagnant pools, swamps, brackish water on coral islet). ---; ---; 70, 143, 190, 242, 277 (Crab holes, stagnant pools, swamps, brackish water on coral islet)<br><br>Crab holes, stagnant pools and swamps with nipa palms, brackish water, forest streams; ---; 59, 70, 143, 146, 190, 242, 277<br><br>Brackish water; ---; 146<br><br>---; ---; 149<br><br>Forest streams; ---; 242<br><br>Shaded natural water collections, artificial containers; ---; 277<br><br>---; enters houses; 277 | Barraud<br><br>Belkin<br><br>Brug<br><br>Brug &<br>Edwards<br><br>Baisas<br><br>Causey<br><br>Barraud &<br>Christophers | 1934<br><br>1953 +<br><br>1924<br><br>1931<br><br>1935<br><br>1937<br><br>1931 |
| <i>bicolor</i><br>Leicester                         | ---; ---; 143, 190 (Marshy edges of jungle stream)  | Barraud   | 1934   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)               | AUTHOR                 | DATE   |
|--|---|------------------------|--------|
| <i>URANOTAENIA bimaculata</i><br>Leicester         | Artificial containers, tree holes, bamboos; ---; 76                                   | Bohart                 | 1946   |
|  | Bamboo stumps and papaya tree holes; ---; 77  | Chow                   | 1950   |
|  | In water in tree holes; Sept.-Oct.; 143, 190  | Barraud                | 1926   |
|  | Artificial containers, shaded bamboo stumps; June--Sept.; 158                         | La Caise & Yamaguti    | 1950   |
|  | Tree holes, cut bamboo and occasionally in rock holes; ---; 158                       | Hsiao & Bohart         | 1946   |
|  | ---; ---; 190 (Bamboos)   | Barraud                | 1934   |
|  | ---; ---; 242. Tree holes, cut bamboo; ---; 257                                       | Bohart & Ingram        | 1946   |
|  | ---; ---; 277   | Delfinado              | 1966   |
|  | Pitcher plants; ---; 145  | Edwards                | 1923 + |
|  | ---; ---; 149, 190  | Brug & Edwards         | 1931   |
| <i>brevirostris</i><br>Edwards                     | Pitcher plants; ---; 280  | Edwards & Given        | 1928   |
|  | Streams, rock springs, ravine; ---; 70  | Senior-White           | 1920 a |
|  | Rice field; ---; 70   | Senior-White           | 1925   |
|  | Tank; rare, Oct.; 143   | Fletcher               | 1923   |
|  | ---; ---; 143 (Streams and rock springs)  | Barraud                | 1934   |
|  | ---; ---; 145   | Edwards                | 1922 c |
|  | ---; ---; 146, 149  | Brug & Edwards         | 1931   |
|  | Jungle pools; ---; 190  | Smart                  | 1914   |
|  | ---; in train near light; 277   | Barraud & Christophers | 1931   |
|  | ---; ---; 143   | Barraud                | 1934   |
| <i>campestris</i><br>var. <i>zelena</i><br>Barraud | ---; ---; 11  | Barraud                | 1934   |
| <i>christophersi</i><br>Barraud                    | Fresh water marshes, dark and shaded swamp forest and residual ground pools; ---; 242 | Delfinado              | 1966   |
| <i>clara</i><br>Dyar & Shannon                     |   |                        |        |

TABLE 1 - MOSQUITOES (continued)

| SPECIES  | REARING HABITS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR            | DATE   |
|--|---|-------------------|--------|
| <i>URANOTAENIA</i><br><i>coeruleocephala</i><br>Theobald | ---; ---; 242   | Bezzi             | 1913   |
| <i>delae</i><br>Baisas                                   | Fresh water marsh; July; 242  | Baisas            | 1935   |
| <i>edwardsi</i><br>Barraud                               | ---; indoors; 143   | Barraud           | 1934   |
| <i>gigantea</i><br>Brug                                  | In leaf cups; ---; 149  | Brug              | 1931 a |
| <i>hebes</i><br>Barraud                                  | ---; in jungle; 143   | Barraud           | 1934   |
| <i>heiseri</i><br>Baisas                                 | Fresh water swamps; July; 242   | Baisas            | 1935   |
| <i>hongayi</i><br>Galliard &<br>Ngu                      | ---; ---; 144   | Stone et al.      | 1959   |
| <i>innotata</i><br>Dyar &<br>Shannon                     | ---; ---; 242   | Dyar &<br>Shannon | 1925   |
| <i>jacksoni</i><br>Edwards                               | ---; ---; 76  | Bohart            | 1946   |
|  | ---; ---; 139   | Heiao             | 1945   |
| <i>kalabahensis</i><br>Haga                              | ---; ---; 146, 337  | Haga              | 1925   |
| <i>lagunensis</i><br>Baisas                              | Jungle, hoof prints, forest swamps and rock holes in creeks; ---; 242   | Delfinado         | 1966   |
|  | ---; March, Nov.; 242   | Baisas            | 1935   |
| <i>lateralis</i><br>Ludlow                               | ---; ---; 11, 70, 143, 145, 190, 242, 277, 337<br>(Forest streams, grassy puddles and brackish nipa palm swamps, crab holes and stagnant pools) | Delfinado         | 1966   |
| <i>longirostris</i><br>Leicester                         | ---; ---; 143, 190 (Ponds, clear pools at side of stream)   | Barraud           | 1934   |
| <i>ludlowae</i><br>Dyar & Shannon                        | Large, clear, vegetated pools or marshes; ---; 242  | Baisas            | 1935   |
| <i>luteola</i><br>Edwards                                | ---; ---; 11, 143   | Barraud           | 1934   |
| <i>lutescens</i><br>Leicester                            | Hollow bamboo stalks; ---; 144  | Borel             | 1930 a |
|  | ---; ---; 145, 190  | Edwards           | 1922 c |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)                                      | AUTHOR                    | DATE   |
|---|--|---------------------------|--------|
| <i>URANOTAENIA macfarlanei</i><br>Edwards | Shady, sand-bottomed pools in hilly streams; ---; 76.<br>Small leafy pools; ---; 146. Cave pools; Sept.; 257 | Bohart &<br>Ingram        | 1946   |
|   | Shaded fresh water pool connecting with a hill stream; ---; 76   | Feng                      | 1933 b |
|   | Small pools, unclean water; ---; 76  | Chang                     | 1939   |
|   | Sandy stream bed pools; ---; 76  | Bohart                    | 1946   |
|   | Ground pools; under rock overhanging hole; 77  | Chow                      | 1950   |
|   | ---; ---; 139, 149, 190 (Stream beds with sandy bottoms in hilly country)                                    | Hsiao                     | 1945   |
|   | ---; in jungle; 143  | Barraud                   | 1934   |
|   | Small pool with decaying organic matter; ---; 146  | Brug                      | 1932 + |
| <i>maculipileura</i><br>Leicester         | ---; under rock overhanging hole; 77   | Chow                      | 1950   |
|   | ---; in jungle; 143. ---; ---; 190   | Barraud                   | 1934   |
| <i>maxima</i><br>Leicester                | ---; in houses, Oct.; 143  | Barraud                   | 1926   |
|   | Rock pools at edge of a stream; ---; 190   | Barraud                   | 1934   |
| <i>merdiolai</i><br>Baisas                | Rock holes in forest creeks, along stagnated clear edges of creeks and shaded pools in jungle; ---; 242      | Delfinado                 | 1966   |
|   | ---; Jan., March, Nov.; 242  | Baisas                    | 1935   |
| <i>metatareata</i><br>Edwards             | ---; ---; 190  | Edwards                   | 1928   |
|   | ---; enters houses; 277  | Barraud &<br>Christophers | 1931   |
| <i>micans</i><br>Leicester                | ---; ---; 190  | Edwards                   | 1928   |
| <i>modesto</i><br>Leicester               | ---; ---; 145, 190   | Edwards                   | 1922 c |
| <i>moultoni</i><br>Edwards                | ---; ---; 145  | Edwards                   | 1914 a |
|   | ---; ---; 149  | Brug &<br>Edwards         | 1931   |
| <i>nanseica</i><br>Bohart &<br>Ingram     | ---; damp rock by stream, Sept.; 257   | Bohart &<br>Ingram        | 1946   |
| <i>nivea</i><br>Leicester                 | ---; ---; 190, 242   | Delfinado                 | 1966   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES                                 | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)            | AUTHOR             | DATE   |
|---|--|--------------------|--------|
| <i>URANOTAENIA</i>                      |  |                    |        |
| <i>nivipes</i><br>(Theobald)            | ---; ---; 190, 242   | Edwards            | 1922 c |
| <i>nivipleura</i><br>Leicester          | ---; ---; 70   | Carter             | 1950 a |
|   | Tree holes in mountains; ---; 143. ---; ---; 190,<br>257. Pitcher plants; ---; 280 | Bohart &<br>Ingram | 1946   |
|   | Artificial containers, coconut shells, bamboo<br>stumps; ---; 280                  | Colless            | 1957 a |
| <i>obscura</i><br>Edwards               | Bamboo stumps; ---; 76   | Chow               | 1949   |
|   | ---; ---; 144  | Borel              | 1930 a |
|   | ---; ---; 145  | Edwards            | 1915   |
|   | ---; ---; 149, 190   | Brug &<br>Edwards  | 1931   |
|   | Fallen leaves, in jungle; ---; 280   | Edwards &<br>Given | 1928   |
| <i>orientalis</i><br>Barraud            | ---; in jungle; 143  | Barraud            | 1934   |
|   | Artificial containers; ---; 277  | Causey             | 1937   |
| <i>papua</i><br>Brus                    | ---; ---; 147, 337   | Haga               | 1925   |
| <i>pygmaea</i><br>Theobald              | ---; ---; 242  | Dyar &<br>Shannon  | 1925   |
| <i>pylei</i><br>Baisas                  | Tree holes; ---; 242   | Delfinado          | 1966   |
| <i>quinquemaculata</i><br>Bonne-Wepster | Rot holes in fallen trees; ---; 146  | Bonne-Wepster      | 1934 + |
| <i>recondita</i><br>Edwards             | ---; ---; 70   | Carter             | 1950 a |
|   | Tree holes; Sept.; 143   | Barraud            | 1926   |
| <i>reyi</i><br>Baisas                   | Wide, vegetated, clear pool or marsh; July; 242                                    | Baisas             | 1935   |
| <i>rossi</i><br>Delfinado               | ---; jungle under bark of trees; 242   | Delfinado          | 1966   |
| <i>rutherfordi</i><br>Edwards           | ---; enters houses; 70   | Edwards            | 1922 b |
| <i>stonei</i><br>Bohart &<br>Ingram     | Deep rock holes along banks of streams; August-<br>September; 257                  | Bohart &<br>Ingram | 1946   |

TABLE 1 - MOSQUITOES (continued)

| SPECIES   | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR  | DATE   |
|---|---|---|--|
| <i>URANOTAENIA</i><br><i>stricklandi</i><br>Barraud | ---; ---; 143   | Barraud   | 1934   |
| <i>subnormalis</i><br>Martini                       | ---; enters houses; 145. ---; ---; 280<br>---; ---; 190<br>Pitcher plants; ---; 280<br>---; ---; 337  | Edwards<br>Edwards<br>Edwards<br>Brug   | 1922 c<br>1928<br>1926<br>1924                           |
| <i>testacea</i><br>Theobald                         | ---; ---; 59, 76, 143<br>---; ---; 139<br>---; ---; 190, 280<br>Forest streams, muddy creeks, hoof prints in jungle and shaded rock pools abundant with surface litter and scum; ---; 242<br>Valley stream; ---; 277  | Wu<br>Hsiac<br>Bohart<br>Delfinado<br>Causey  | 1940<br>1945<br>1945<br>1966<br>1937                     |
| <i>trilineata</i><br>Leicester                      | Rock pool, artificial containers; ---; 70<br>Bamboo stumps; Aug.-Oct.; 143. ---; ---; 190<br>Tree holes; ---; 143<br>Tree holes and bamboo stalks, artificial containers; ---; 144  | Senior-White<br>Barraud<br>Barraud<br>Borel   | 1920 a<br>1924 a<br>1923 b<br>1926                       |
| <i>tubanguii</i><br>Baisas                          | Tree holes in jungle, cut bamboo; ---; 242<br>---; July; 242  | Delfinado<br>Baisas   | 1966<br>1935   |
| <i>unquiculata</i><br>Edwards                       | Swamps, pits; ---; 35, 118, 256, 321, 326, 342 (Bites man)<br>---; ---; 35, 303, 318, 321, 326, 342, 345 (Small, stagnant, shady reservoirs with vegetation)<br>---; ---; 143<br>Pits and ditches; ---; 149. ---; ---; 318<br>---; ---; 151<br>---; August-winter; 154, 159. ---; Jan. and Aug - winter; 342 (Large marshy areas, cows' foot prints)<br>---; ---; 162, 235, 342 (Reedy and weedy pools in swampy grounds, borrow pits, disused wells, rice fields, drains between rice fields, sides of canals) | Shtakelberg<br>Monchadskii<br>Barraud<br>Gutzevich<br>Stone et al.<br>Buxton<br>Barraud | 1937<br>1936<br>1926<br>1948 +<br>1959<br>1924 a<br>1934 |

TABLE 1 - MOSQUITOES (conclusion)

| SPECIES  | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)  | AUTHOR   | DATE   |
|--|--|--|--|
| <i>URANOTAENIA unguiculata</i><br>Edwards<br>(cont.) | Swamps and clay pits with vegetation; Oct.; 302<br>---; ---; 303<br>---; ---; 317<br>---; most active August-September; 321<br>Swamps; ---; 326<br>---; ---; 345 | Parr<br>Keshish'yan<br>Anonymous<br>Rybinsky<br>Kazantzev<br>Shingarev | 1943 +<br>1941<br>1944<br>1933<br>1932<br>1926 |
| <i>unguiculata peflyi</i><br>Stone                   | ---; ---; 25   | Stone  | 1961   |
| <i>unimaculata</i><br>Leicester                      | ---; ---; 190  | Edwards  | 1922 c   |
| <i>xanthomelaena</i><br>Edwards                      | Pitcher plants; ---; 190<br>Pitcher plants; ---; 280   | Edwards<br>Edwards &<br>Given  | 1925<br>1928                                   |
| <i>ZEUGNOMYIA aguilari</i><br>Baisas &<br>Feliciano  | Artificial containers; at 2900-3000 feet elevation;<br>242   | Delfinado  | 1966   |
| <i>fajardoi</i><br>Baisas &<br>Feliciano             | Tree holes, trough in logs, forest at 3600 feet<br>elevation; ---; 242   | Delfinado  | 1966   |
| <i>gracilis</i><br>Leicester                         | Jungle; ---; 145<br>Fallen forest leaves with water; ---; 190, 242<br>---; ---; 190°<br>Fallen leaves with water in jungles, predaceous;<br>---; 280             | Colless<br>Delfinado<br>Edwards  | 1957 a<br>1966<br>1932 +<br>1928               |
| <i>lawtoni</i><br>Baisas                             | Fallen leaves and axils of palm with water; jungle<br>trap; 242  | Delfinado  | 1966   |

TABLE 1 - MOSQUITOES  
(ACODEMIA)

| SPECIES                           | BREEDING HABITATS; ADULT ACTIVITY; DISTRIBUTION<br>(GENERAL STATEMENTS)   | AUTHOR          | DATE   |
|-----------------------------------|---|-----------------|--------|
| <b>AEDES</b>                      |   |                 |        |
| <i>koreicus</i><br>Edwards        | Water pools, artificial containers; bites during the day; 168°  | Heiao           | 1948   |
| <i>luteolocalis</i><br>(Theobald) | ---; ---; 70  | James           | 1914   |
| <b>ANOPHELES</b>                  |   |                 |        |
| <i>aconitus</i><br>Dönnitz        | Polluted fish pond; ---; 190  | Hacker          | 1923   |
| <i>brevipalpis</i><br>Roper       | Shady drains, pools, swamps, jungles; ---; 147°   | Boyd            | 1949   |
|                                   | ---; ---; 149   | Brug & Edwards  | 1931   |
| <i>hackeri</i><br>Edwards         | ---; ---; 242   | Stone et al.    | 1959   |
| <i>leucosphyrus</i><br>Dönnitz    | ---; ---; 145*. ---; suspected vector of malaria; Reid 149. ---; June-July; 277                                       | Reid            | 1949   |
| <i>lindesayi</i><br>Giles         | Cool spring water or shaded pools; at high altitudes, enters houses, under rocks; 76°                                 | Feng            | 1938   |
| <i>umbrosus</i><br>Theobald       | Large, swampy pools, ricefields; ---; 190   | Lamborn         | 1922 a |
| <b>ARMICERES</b>                  |   |                 |        |
| <i>magnus</i><br>(Theobald)       | Pitcher plants; ---; 139  | Barraud         | 1934   |
| <i>Culex</i>                      |   |                 |        |
| <i>bitaeniorhynchus</i><br>Giles  | ---; July-August; 158   | Mitamura et al. | 1950   |
| <i>fatigans</i><br>Wiedemann      | Concrete drains, hyacinth ponds, obstructed drains, artificial containers, coconut shells and bamboo stumps; ---; 280 | Colless         | 1957 a |
| <i>pipiens</i><br>Linnaeus        | Foul water; ---; 256  | Martini         | 1925   |

TABLE 2 - SUMMARY OF DISEASES OR DISEASE ORGANISMS TRANSMITTED BY MOSQUITOES

| SPECIES                        | DISEASE OR DISEASE ORGANISM  |                         |             |         |  | COUNTRY                          |
|--------------------------------|------------------------------|-------------------------|-------------|---------|--|----------------------------------|
|                                | : VIRUS &                    | :                       | :           | :       | :                                      |                                  |
|                                | : RICKETTSIA                 | : PROTOZOA              | : HELMINTHS | : OTHER | :                                      |                                  |
|                                |                              |                         |             |         |  |                                  |
| <i>AEDES</i>                   |                              |                         |             |         |  |                                  |
| <i>aegypti</i><br>(Linnaeus)   | Dengue                       |                         |             |         | 59<br>76<br>118<br>139<br>144<br>154   | 159<br>242<br>257<br>317<br>337  |
|                                | Yellow fever                 |                         |             |         |  | 242 (Siler<br>et al. 1926)       |
| <i>albopictus</i><br>(Skuse)   | Dengue                       |                         |             |         | 76<br>145 +<br>146 +<br>147 +<br>149 + | 158<br>168<br>194<br>242         |
|                                |                              | Filariasis              |             |         |  | 168 (Barnett &<br>Toshioka 1951) |
|                                |                              | Nocturnal<br>filariasis |             |         |  | 76                               |
| <i>argenteus</i><br>Poiret     | Dengue                       |                         |             |         |  | 2                                |
| <i>chemulpoensis</i><br>Yamada |                              | Nocturnal<br>filariasis |             |         |  | 158                              |
| <i>cinereus</i><br>Meigen      |                              | Tularemia               |             |         |  | 256                              |
| <i>coecilus</i><br>Theobald    |                              | Nocturnal<br>filariasis |             |         |  | 242                              |
| <i>togoi</i><br>(Theobald)     |                              | Filariasis              |             |         |  | 194                              |
|                                | Japanese "B"<br>encephalitis |                         |             |         |  | 158                              |
|                                |                              | Nocturnal<br>filariasis |             |         |  | 158 (Manson-Bahr<br>1959)        |
| <i>ANOPHELES</i>               |                              |                         |             |         |  |                                  |
| <i>aconitus</i><br>Dönnitz     | Malaria                      |                         |             |         | 76 +<br>143<br>144<br>145 +<br>146     | 158<br>190<br>337<br>366         |
|                                |                              | Nocturnal<br>filariasis |             |         |  | 145 (Manson-Bahr<br>1959)        |

TABLE 2 - MOSQUITOES (continued)

| SPECIES  | DISEASE OR DISEASE ORGANISM |   |            |             |         | COUNTRY                    |
|--|-----------------------------|---|------------|-------------|---------|----------------------------|
|  | : VIRUS &                   | : | : PROTOZOA | : HELMINTHS | : OTHER |                            |
| <i>Anopheles algeriensis</i><br>Theobald                   | Malaria                     |   |            |             |         | 256                        |
| <i>aenularis</i><br>van der Wulp                           | Malaria                     |   |            |             | 70 +    | 149 +                      |
|  |                             |   |            |             | 76      | 190                        |
|  |                             |   |            |             | 143     | 277                        |
|  |                             |   |            |             | 146 +   |                            |
| <i>arabica</i><br>Christophers &<br>Khazan Chand           | Malaria                     |   |            |             |         | 154                        |
| <i>baezai</i><br>Gater                                     | Malaria                     |   |            |             |         | 302                        |
| <i>balabacensis</i><br>Baisas                              | Malaria                     |   |            |             |         | 145                        |
| <i>bancrofti</i><br>Giles                                  | Malaria                     |   |            |             |         | 277                        |
| <i>barbirostris</i><br>van der Wulp                        | Filariasis                  |   |            |             |         | 147 +                      |
|  | Malaria                     |   |            |             | 144     | 190                        |
|  |                             |   |            |             | 145     | (Russell 1956)             |
|  | Nocturnal<br>filariasis     |   |            |             | 143     | 145 (Manser-<br>Bahr 1959) |
|  | <i>Wuchereria bancrofti</i> |   |            |             | 143     | 277                        |
|  | <i>Wuchereria malayi</i>    |   |            |             |         | 145                        |
| <i>barbirostris</i><br><i>barbirostris</i><br>van der Wulp | Malaria                     |   |            |             |         | 190                        |
|  | Nocturnal<br>filariasis     |   |            |             |         | 146                        |
| <i>barbirostris</i><br><i>innominata</i><br>(Venhuis)      | Malaria                     |   |            |             |         | 145 +                      |
| <i>bifurcatus</i><br>Linnaeus                              | Malaria                     |   |            |             |         | 342                        |

TABLE 2 - MOSQUITOES (continued)

| SPECIES              | DISEASE OR DISEASE ORGANISM |                   |             |         |   | COUNTRY            |
|----------------------|-----------------------------|-------------------|-------------|---------|---|--------------------|
|                      | : VIRUS &                   | :                 | :           | :       | : |                    |
|                      | : RICKETTSIA                | : PROTOZOA        | : HELMINTHS | : OTHER | : |                    |
|                      |                             |                   |             |         |   |                    |
| <i>ANOPHELES</i>     |                             |                   |             |         |   |                    |
| <i>candidienseis</i> | Malaria                     |                   |             |         |   | 139                |
| Koizumi              |                             |                   |             |         |   |                    |
| <i>claviger</i>      | Malaria                     |                   |             |         |   | 154                |
| Meigen               |                             |                   |             |         |   | 159                |
|                      |                             |                   |             |         |   | 174                |
|                      |                             | <i>Plasmodium</i> |             |         |   | 35                 |
|                      |                             | <i>vivax</i>      |             |         |   |                    |
| <i>culicifacies</i>  | Malaria                     |                   |             |         |   | 3                  |
| Giles                |                             |                   |             |         |   | 59                 |
|                      |                             |                   |             |         |   | 70                 |
|                      |                             |                   |             |         |   | 76                 |
|                      |                             |                   |             |         |   | 143                |
| <i>elutus</i>        | Malaria                     |                   |             |         |   | 118                |
| Edwards              |                             |                   |             |         |   | 150 +              |
|                      |                             |                   |             |         |   | 342                |
| <i>fasciatus</i>     | Malaria                     |                   |             |         |   | 145                |
| Laveran              |                             |                   |             |         |   |                    |
| <i>febrifer</i>      | Malaria                     |                   |             |         |   | 242                |
| Banks                |                             |                   |             |         |   |                    |
| <i>flavirostris</i>  | Malaria                     |                   |             |         |   | 242                |
| Baisas               |                             |                   |             |         |   |                    |
| <i>fluviatilis</i>   | Malaria                     |                   |             |         |   | 139 +              |
| James                |                             |                   |             |         |   | 143                |
|                      |                             |                   |             |         |   | 277                |
| <i>fuliginosus</i>   | Malaria                     |                   |             |         |   | 76 +               |
| Giles                |                             |                   |             |         |   | 143 (Iyengar 1930) |
|                      |                             | Nocturnal         |             |         |   |                    |
|                      |                             | filariasis        |             |         |   |                    |
|                      |                             |                   |             |         |   | 143                |
| <i>funestus</i>      | Malaria                     |                   |             |         |   | 146                |
| Giles                |                             |                   |             |         |   |                    |
| <i>gambiae</i>       | Malaria                     |                   |             |         |   | 242                |
| Giles                |                             |                   |             |         |   |                    |
| <i>hyrcanus</i>      |                             | Filariasis        |             |         |   | 76 (Feng 1935)     |
| Pallas               |                             |                   |             |         |   |                    |
|                      | Malaria                     |                   |             |         |   | 139 +              |
|                      |                             |                   |             |         |   | 145 +              |
|                      |                             |                   |             |         |   | 150 +              |
|                      |                             | <i>Wuchereria</i> |             |         |   |                    |
|                      |                             | <i>bancrofti</i>  |             |         |   |                    |
|                      |                             |                   |             |         |   | 76                 |
|                      |                             |                   |             |         |   |                    |
|                      |                             | <i>Wuchereria</i> |             |         |   |                    |
|                      |                             | <i>malayi</i>     |             |         |   |                    |
|                      |                             |                   |             |         |   | 146                |

TABLE 2 - MOSQUITOES (continued)

| SPECIES                  | DISEASE OR DISEASE ORGANISM |   |          |                   |       | COUNTRY             |
|--------------------------|-----------------------------|---|----------|-------------------|-------|---------------------|
|                          | : VIRUS &                   | : | PROTOZOA | HELMINTHS         | OTHER |                     |
|                          | : RICKETTSIA                | : | :        | :                 | :     |                     |
| <i>Anopheles</i>         |                             |   |          |                   |       |                     |
| <i>hyrcanus</i>          |                             |   |          |                   |       |                     |
| var. <i>nigerrimus</i>   |                             |   |          |                   |       |                     |
| Giles                    |                             |   |          |                   |       |                     |
|                          |                             |   |          | Filariasis        |       |                     |
|                          |                             |   |          |                   | 70    | 143                 |
|                          |                             |   |          |                   | 76    | +                   |
|                          |                             |   |          | Malaria           |       |                     |
|                          |                             |   |          |                   | 76    | 158                 |
|                          |                             |   |          |                   | 143   | 190                 |
|                          |                             |   |          |                   | 144   | 337                 |
|                          |                             |   |          |                   |       |                     |
| <i>hyrcanus</i>          |                             |   |          |                   |       |                     |
| <i>pseudopictus</i>      |                             |   |          |                   |       |                     |
| Grassi                   |                             |   |          | Malaria           |       |                     |
|                          |                             |   |          |                   | 256   | +                   |
|                          |                             |   |          |                   |       | 345                 |
|                          |                             |   |          |                   |       |                     |
| <i>hyrcanus</i>          |                             |   |          |                   |       |                     |
| var. <i>sinensis</i>     |                             |   |          |                   |       |                     |
| Wiedemann                |                             |   |          | Filariasis        |       |                     |
|                          |                             |   |          |                   | 76    | (Hsiao 1946)        |
|                          |                             |   |          | Malaria           |       |                     |
|                          |                             |   |          |                   | 59    | 158 (Yamada 1925)   |
|                          |                             |   |          |                   | 76    | 168                 |
|                          |                             |   |          |                   | 77    | 337                 |
|                          |                             |   |          |                   | 144   |                     |
|                          |                             |   |          | Nocturnal         |       |                     |
|                          |                             |   |          | filariasis        |       |                     |
|                          |                             |   |          |                   | 139   | 158                 |
|                          |                             |   |          | <i>Wuchereria</i> |       |                     |
|                          |                             |   |          | <i>bancrofti</i>  |       |                     |
|                          |                             |   |          |                   |       | 76 (Feng 1935)      |
| <i>jeyporiensis</i>      |                             |   |          |                   |       |                     |
| James                    |                             |   |          | Malaria           |       |                     |
|                          |                             |   |          |                   | 59    | 139                 |
|                          |                             |   |          |                   | 76    | 144                 |
|                          |                             |   |          | <i>Wuchereria</i> |       |                     |
|                          |                             |   |          | <i>malayi</i>     |       |                     |
|                          |                             |   |          |                   |       | 144 (Raghavan 1961) |
|                          |                             |   |          |                   |       |                     |
| <i>jeyporiensis</i>      |                             |   |          | Filariasis        |       |                     |
| var. <i>candidiensis</i> |                             |   |          |                   | 76    | (Feng 1935)         |
| Koidzumi                 |                             |   |          | Malaria           |       |                     |
|                          |                             |   |          |                   | 59    | 144                 |
|                          |                             |   |          |                   | 76    | 235                 |
|                          |                             |   |          |                   | 143   |                     |
|                          |                             |   |          | Nocturnal         |       |                     |
|                          |                             |   |          | filariasis        |       |                     |
|                          |                             |   |          |                   |       | 139                 |
|                          |                             |   |          | <i>Wuchereria</i> |       |                     |
|                          |                             |   |          | <i>bancrofti</i>  |       |                     |
|                          |                             |   |          |                   |       | 139 (Raghavan 1961) |
| <i>kochi</i>             |                             |   |          |                   |       |                     |
| Dönitz                   |                             |   |          |                   | 144   | 190                 |
| <i>labranchiae</i>       |                             |   |          |                   |       |                     |
| <i>atroparvus</i>        |                             |   |          | Malaria           |       |                     |
| van Thiel                |                             |   |          |                   | 194   | 353                 |
|                          |                             |   |          |                   | 256   |                     |

TABLE 2 - MOSQUITOES (continued)

| SPECIES             | DISEASE OR DISEASE ORGANISM |            |             |         |   | COUNTRY   |
|---------------------|-----------------------------|------------|-------------|---------|---|-----------|
|                     | : VIRUS &                   | :          | :           | :       | : |           |
|                     | : RICKETTSIA                | : PROTOZOA | : HELMINTHS | : OTHER | : |           |
|                     | :                           | :          | :           | :       | : |           |
| <i>Anopheles</i>    |                             |            |             |         |   |           |
| <i>letifer</i>      | Malaria                     |            |             |         |   | 190       |
| Sandosham           |                             |            |             |         |   |           |
| <i>leucosphyrus</i> | Malaria                     |            |             |         |   | 59 144    |
| Dönnitz             |                             |            |             |         |   | 76 + 145  |
|                     |                             |            |             |         |   | 143 337   |
| <i>leucosphyrus</i> |                             |            |             |         |   |           |
| <i>balabacensis</i> | Malaria                     |            |             |         |   | 145       |
| Baisas              |                             |            |             |         |   |           |
| <i>leucosphyrus</i> |                             |            |             |         |   |           |
| <i>leucosphyrus</i> | Malaria                     |            |             |         |   | 145 242   |
| Dönnitz             |                             |            |             |         |   | 190       |
| <i>ludlowae</i>     | Malaria                     |            |             |         |   | 143 280 + |
| Theobald            |                             |            |             |         |   | 145 337 + |
|                     |                             |            |             |         |   | 190 +     |
|                     |                             | Nocturnal  |             |         |   |           |
|                     |                             | filariasis |             |         |   | 146       |
| <i>ludlowi</i>      |                             |            |             |         |   |           |
| <i>sundaicus</i>    | Malaria                     |            |             |         |   | 11 277    |
| Rodenwaldt          |                             |            |             |         |   | 144 337   |
|                     |                             |            |             |         |   | 190       |
|                     |                             | Nocturnal  |             |         |   |           |
|                     |                             | filariasis |             |         |   | 143       |
| <i>maculatus</i>    |                             |            |             |         |   |           |
| Theobald            | Malaria                     |            |             |         |   | 59 190    |
|                     |                             |            |             |         |   | 76 242    |
|                     |                             |            |             |         |   | 139 277   |
|                     |                             |            |             |         |   | 143 280   |
|                     |                             |            |             |         |   | 144 337   |
|                     |                             | Nocturnal  |             |         |   |           |
|                     |                             | filariasis |             |         |   | 145       |
| <i>maculatus</i>    |                             |            |             |         |   |           |
| <i>maculatus</i>    | Malaria                     |            |             |         |   | 150 190   |
| Theobald            |                             |            |             |         |   |           |
| <i>maculatus</i>    |                             |            |             |         |   |           |
| <i>willmori</i>     | Malaria                     |            |             |         |   | 235 +     |
| Theobald            |                             |            |             |         |   |           |
| <i>maculipalpis</i> |                             |            |             |         |   |           |
| Giles               | Malaria                     |            |             |         |   | 143 144   |

TABLE 2 - MOSQUITOES (continued)

| SPECIES  | DISEASE OR DISEASE ORGANISM       |   |          |   |  | COUNTRY  |
|--|-----------------------------------|---|----------|---|--|--|
|  | VIRUS &                           | : | PROTOZOA | : | HELMINTHS  |  |
|  | RICKETTSIA                        | : |          | : | OTHER  |  |
| <i>ANOPHELES</i>   |                                   |   |          |   |  |  |
| <i>maculipalpis</i><br>var. <i>indiensis</i><br>Theobald       | Malaria                           |   |          |   |  | 76   |
| <i>maculipennis</i><br>Meigen                                  | Malaria                           |   |          |   |  | 35 + 302 +<br>150 303 +<br>151 317 +<br>154 + 321<br>159 + |
|  | <i>Plasmodium</i><br><i>vivax</i> |   |          |   |  | 35 (Russell<br>1956)                                       |
| <i>maculipennis</i><br><i>messeae</i><br>Falleroni             | Malaria                           |   |          |   | 166  | 321  |
| <i>maculipennis</i><br><i>sacharovi</i><br>Lavre               | Malaria                           |   |          |   | 150 + 326 +<br>303 + 342 +   |  |
| <i>maculipennis</i><br><i>subalpinus</i><br>Hackett &<br>Lewis | Malaria                           |   |          |   |  | 150 +  |
| <i>manyanus</i><br>(Banks)                                     | Malaria                           |   |          |   |  | 242  |
| <i>messeae</i><br>Falleroni                                    | Malaria                           |   |          |   | 76   | 294  |
| <i>minimus</i><br>Theobald                                     | Filariasis                        |   |          |   |  | 76 (Feng 1935)   |
|  | Malaria                           |   |          |   | 59 + 158<br>76 168<br>77 185<br>139 235<br>143 242<br>144 277<br>147 + 366 |  |
|  | Nocturnal<br>filariasis           |   |          |   | 139  | 144 (Manson-<br>Bahr 1959)                                 |
| <i>minimus</i><br><i>flavirostris</i><br>(Ludlow)              | Malaria                           |   |          |   | 242  | 337  |
|  | <i>Plasmodium</i><br><i>vivax</i> |   |          |   |  | 242  |

TABLE 2 - MOSQUITOES (continued)

| SPECIES               | DISEASE OR DISEASE ORGANISM |            |             |            |       | COUNTRY            |
|-----------------------|-----------------------------|------------|-------------|------------|-------|--------------------|
|                       | : VIRUS &                   | :          | :           | :          | :     |                    |
|                       | : RICKETTSIA                | : PROTOZOA | : HELMINTHS | : OTHER    | :     |                    |
|                       | :                           | :          | :           | :          | :     |                    |
| <i>ANOPHELES</i>      |                             |            |             |            |       |                    |
| <i>minimus</i>        |                             |            |             |            |       |                    |
| <i>flavirostris</i>   |                             |            |             |            |       |                    |
| (Ludlow)              |                             |            |             |            |       |                    |
| (cont.)               |                             |            |             |            |       |                    |
| <i>minimus</i>        |                             |            |             |            |       |                    |
| <i>minimus</i>        |                             | Malaria    |             |            | 59    | 143                |
| Theobald              |                             |            |             |            | 76    | 144                |
|                       |                             |            |             |            | 77    |                    |
| <i>multicolor</i>     |                             | Malaria    |             |            |       | 342                |
| Camboulin             |                             |            |             |            |       |                    |
| <i>nigerrimus</i>     |                             | Malaria    |             |            | 59 +  | 149 +              |
| (Giles)               |                             |            |             |            | 146 + |                    |
| <i>novumbrosus</i>    |                             | Malaria    |             |            |       | 190                |
| Strickland            |                             |            |             |            |       |                    |
| <i>pallidus</i>       |                             | Malaria    |             |            |       | 143                |
| Theobald              |                             |            |             | Nocturnal  |       |                    |
|                       |                             |            |             | filariasis |       |                    |
|                       |                             |            |             |            | 143   | (Manson-           |
|                       |                             |            |             |            |       | Bahr 1959)         |
|                       |                             |            |             |            |       |                    |
| <i>pattoni</i>        |                             |            |             |            |       |                    |
| Christophers          |                             | Malaria    |             |            | 76    | 158                |
|                       |                             |            |             |            | 144   | 194 +              |
| <i>pharoensis</i>     |                             | Malaria    |             |            | 154   | 159                |
| Theobald              |                             |            |             |            |       |                    |
| <i>philippinensis</i> |                             |            | Filariasis  |            |       | 143 (Iyengar 1956) |
| Ludlow                |                             |            |             |            |       |                    |
|                       |                             | Malaria    |             |            | 143   | 366                |
|                       |                             |            |             |            | 235   |                    |
| <i>plumbeus</i>       |                             | Malaria    |             |            | 256 + | 350                |
| Stephens              |                             |            |             |            | 345   |                    |
| <i>pulcherrimus</i>   |                             | Malaria    |             |            | 151   | 318                |
| Theobald              |                             |            |             |            | 162 + | 326 +              |
|                       |                             |            |             |            | 256   | 345                |
|                       |                             |            |             |            | 303 + |                    |
| <i>punctulatus</i>    |                             | Malaria    |             |            |       | 147                |
| Dünitz                |                             |            |             |            |       |                    |

TABLE 2 - MOSQUITOES (continued)

| SPECIES                            | DISEASE OR DISEASE ORGANISM |            |             |         |       | COUNTRY             |
|------------------------------------|-----------------------------|------------|-------------|---------|-------|---------------------|
|                                    | : VIRUS &                   | :          | :           | :       | :     |                     |
|                                    | : RICKETTSIA                | : PROTOZOA | : HELMINTHS | : OTHER | :     |                     |
| <b>ANCHELELES</b>                  |                             |            |             |         |       |                     |
| <i>punctulatus</i>                 | Malaria                     |            |             |         |       | 147                 |
| <i>moluccensis</i>                 |                             |            |             |         |       |                     |
| Swellengrebel &<br>Swell. de Graaf |                             |            |             |         |       |                     |
| <i>sacharovi</i>                   | Malaria                     |            |             | 3       | 256   |                     |
| Favre                              |                             |            |             | 150     | 302   |                     |
|                                    |                             |            |             | 151     | 303 + |                     |
|                                    |                             |            |             | 154     | 317   |                     |
|                                    |                             |            |             | 159     | 342   |                     |
|                                    |                             |            |             | 174 +   |       |                     |
| <i>sergenti</i>                    | Malaria                     |            |             | 150 +   | 233   |                     |
| Theobald                           |                             |            |             | 154     | 302   |                     |
|                                    |                             |            |             | 159     | 342   |                     |
| <i>sinensis</i>                    | Malaria                     |            |             | 76      | 158   |                     |
| Wiedemann                          |                             |            |             | 77      | 168   |                     |
|                                    |                             |            |             | 139     | 185   |                     |
|                                    |                             |            |             | 144     | 257   |                     |
|                                    |                             |            |             | 149     |       |                     |
|                                    | <i>Plasmodium</i>           |            |             |         |       |                     |
|                                    | <i>vivax</i>                |            |             |         |       | 168 (Hsiao 1948)    |
| <i>stephensi</i>                   | Malaria                     |            |             | 25      | 150   |                     |
| Liston                             |                             |            |             | 37      | 151   |                     |
|                                    |                             |            |             | 143     | 235   |                     |
|                                    | Nocturnal                   |            |             |         |       |                     |
|                                    | f lariasis                  |            |             |         |       | 143 (Manson-        |
|                                    |                             |            |             |         |       | Bahr 1959)          |
| <i>stephensi</i>                   | Malaria                     |            |             |         |       | 143                 |
| <i>mysorensis</i>                  |                             |            |             |         |       |                     |
| Sweet & Rao                        |                             |            |             |         |       |                     |
| <i>subpictus</i>                   | Malaria                     |            |             | 145     | 190 + |                     |
| Grassi                             |                             |            |             | 147 +   | 337 + |                     |
|                                    | Nocturnal                   |            |             |         |       |                     |
|                                    | filariasis                  |            |             |         |       | 143                 |
|                                    |                             |            |             |         |       | 146                 |
|                                    | <i>Wuchereria</i>           |            |             |         |       |                     |
|                                    | <i>bancrofti</i>            |            |             |         |       | 143 (Raghavan 1961) |
|                                    |                             |            |             |         |       | 145 (Wilcocks 1944) |
|                                    |                             |            |             |         |       | 146 (Raghavan 1961) |
| <i>subpictus</i>                   | Nocturnal                   |            |             |         |       |                     |
| rossi                              | filariasis                  |            |             |         |       |                     |
| Giles                              |                             |            |             |         |       |                     |
|                                    |                             |            |             |         |       | 143                 |

**TABLE 2 - MOSQUITOES (continued)**

TABLE 2 - MOSQUITOES (continued)

| SPECIES  | DISEASE OR DISEASE ORGANISM |            |                                       |           |                   | COUNTRY                          |
|--|-----------------------------|------------|---------------------------------------|-----------|-------------------|----------------------------------|
|  | VIRUS &                     | RICKETTSIA | PROTOZOA                              | HELMINTHS | OTHER             |                                  |
| <i>CULEX</i><br><i>alis</i><br>Theobald        |                             |            | Nocturnal<br>filariasis               |           |                   | 145                              |
| <i>annulirostris</i><br>Skuse                  |                             |            | Nocturnal<br>filariasis               |           |                   | 145                              |
| <i>bitaeniorhynchus</i><br>Giles               |                             |            | Nocturnal<br>filariasis               |           |                   | 158                              |
| <i>fatigans</i><br>Wiedemann                   |                             |            | Filariasis                            |           |                   | 76+(Farner et al<br>1946)<br>144 |
|  |                             |            | Malaria                               |           |                   | 242 (Haughwout 1918)             |
|  |                             |            | <i>Wuchereria</i><br><i>bancrofti</i> |           | 76 190            |                                  |
|  |                             |            |                                       |           | 143 242           |                                  |
|  |                             |            |                                       |           | 145               |                                  |
| <i>fuscocephalus</i><br>Theobald               |                             |            | Nocturnal<br>filariasis               |           |                   | 145                              |
| <i>microannulatus</i><br>Theobald              |                             |            | Nocturnal<br>filariasis               |           |                   | 143                              |
| <i>pallidithorax</i><br>Theobald               |                             |            | Nocturnal<br>filariasis               |           |                   | 76                               |
| <i>pipiens</i><br>Linnaeus                     |                             |            | <i>Wuchereria</i><br><i>bancrofti</i> |           |                   | 76                               |
| <i>pipiens</i><br><i>fatigans</i><br>Wiedemann |                             |            | Nocturnal<br>filariasis               |           | 70 144            |                                  |
|  |                             |            |                                       |           | 76 145            |                                  |
|  |                             |            |                                       |           | 139 146           |                                  |
|  |                             |            |                                       |           | 143 242           |                                  |
| <i>pipiens</i><br><i>pallens</i><br>Coquillett |                             |            | Filariasis                            |           | 76 158            |                                  |
|  |                             |            |                                       |           | 146               |                                  |
|  |                             |            | Japanese "B"<br>encephalitis          |           |                   | 194                              |
|  |                             |            | <i>Wuchereria</i><br><i>bancrofti</i> |           | 76 (Wharton 1957) |                                  |

TABLE 2 - MOSQUITOES (continued)

| SPECIES                                  | DISEASE OR DISEASE ORGANISM  |   |                          |                             |                      | COUNTRY             |
|--|------------------------------|---|--------------------------|-----------------------------|----------------------|---------------------|
|  | : VIRUS &                    | : | : PROTOZOA               | :                           | HELMINTHS            |                     |
|  | : RICKETTSIA                 | : |                          | :                           | OTHER                |                     |
|  |                              |   |                          |                             |                      |                     |
| <i>Culex quinquefasciatus</i><br>Say     |                              |   |                          | Filariasis                  |                      | 76 (Hsiao 1945)     |
|  |                              |   |                          | <i>Wuchereria bancrofti</i> |                      | 76                  |
| <i>sinensis</i><br>Theobald              |                              |   |                          | Nocturnal filariasis        |                      | 158                 |
| <i>tipuliformis</i><br>Theobald          |                              |   |                          | Nocturnal filariasis        |                      | 158                 |
| <i>tritaeniorhynchus</i><br>Giles        | Japanese "B"<br>encephalitis |   |                          |                             | 150 + 194<br>158 256 |                     |
|  | Summer<br>encephalitis       |   |                          |                             | 158 256              | (Gutzevich<br>1943) |
|  |                              |   |                          | <i>Wuchereria malayi</i>    |                      | 149                 |
| <i>vishnui</i><br>Theobald               |                              |   |                          | Nocturnal filariasis        |                      | 145                 |
|  |                              |   |                          | <i>Wuchereria bancrofti</i> |                      | 337                 |
| <i>whitmorei</i><br>(Giles)              |                              |   |                          | Nocturnal filariasis        | 145 158              |                     |
| <i>MANSONIA annulifara</i><br>(Theobald) |                              |   | Rural<br>filariasis      |                             | 70                   |                     |
|  |                              |   | Endemic<br>filariasis    |                             | 143                  |                     |
|  |                              |   | <i>Wuchereria malayi</i> |                             | 143                  | (Delfinado 1966)    |
|  |                              |   | Filariasis               |                             | 337 +                |                     |
| <i>dives</i><br>(Schiner)                | Malaria                      |   |                          |                             | 190 337              |                     |
| <i>indiana</i><br>Edwards                |                              |   | Rural<br>filariasis      |                             | 70                   |                     |
|  |                              |   | <i>Wuchereria malayi</i> |                             | 146                  |                     |

TABLE 2 - MOSQUITOES (conclusion)

| SPECIES                                      | DISEASE OR DISEASE ORGANISM |            |          |                          |       | COUNTRY            |
|--|-----------------------------|------------|----------|--------------------------|-------|--------------------|
|  | VIRUS &                     | RICKETTSIA | PROTOZOA | HELMINTHS                | OTHER |                    |
| <i>MANSONIA longipalpis</i><br>(van de Wulp) |                             |            |          | <i>Wuchereria malayi</i> |       | 190 (Wharton 1957) |
|  |                             |            |          | <i>Wuchereria malayi</i> |       | 190                |
| <i>wifilis</i><br>(Theobald)                 |                             |            |          | Rurai filariasis         |       | 70                 |
|  |                             |            |          | Filariasis               |       | 77 +               |
|  |                             |            |          | Filariasis               |       | 190 (Wharton 1952) |
|  |                             |            |          | <i>Wuchereria malayi</i> |       | 190                |
| <i>MYZOMYIA sergenti</i><br>Theobald         |                             |            | Malaria  |                          |       | 342                |
| <i>STEGOMYIA argentea</i><br>Poiret          |                             |            | Malaria  |                          |       | 144                |
| <i>fasciata</i><br>Fabricius                 | Dengue                      |            |          |                          | 143   | 317                |
|  | Yellow fever                |            |          |                          |       | 143 (Barraud 1958) |

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